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SURGERY OF THE ESOPHAGUS

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THE ADVANCES that have occurred during the past few years in the management of benign and malignant lesions of the esophagus would seem to make it worthwhile to briefly survey the present status of surgery in this region. This is based on several years of experience with esophageal surgery at the Rhode Island Hospital where the problems encountered are many and frequent. It is, of course, impossible to cover all phases of the subject in detail, but the diseases most frequently encountered are discussed briefly and illustrated with cases that have had a reasonable period of follow-up.

Diverticulum

Diverticulum of the esophagus is due either to traction or to pulsion. The traction type rarely requires surgery while the pulsion, which usually occurs at the pharyngo-esophageal junction, is relatively common and produces characteristic symptoms of pressure, dysphagia, and regurgitation. Many suggestions have been made for its correction, including suspension or inversion of the sac and the two-stage attack. The one-stage operation is generally considered to be the procedure of choice. The diverticulum is dissected out and removed and closure made with two layers of interrupted silk. There are two pitfalls to be avoided; incomplete removal is prone to cause early recurrence and too radical excision may result in stricture.[1] We have employed one additional step to those previously described, *viz.*, utilizing a pedicle flap of prevertebral fascia as a buttress to the suture line. This fascial layer gives added strength to a rather precarious mucosal and muscle closure.

Case I. E.B., a sixty-four-year-old retired hospital attendant, was first seen on June 11, 1953, complaining of difficulty in swallowing for one year. Solid foods tended to stick in his throat and he regurgitated with spasmodic coughing. He had learned to eat slowly and to rely on a liquid diet which was tolerated reasonably well. A barium swallow revealed the presence of a cervical diverticulum of the pulsion type which was 4 cm. in diameter. On June 24, 1953, through a left neck approach, the diverticulum was resected in one-stage. The esophageal wall was closed with two layers of fine silk. In addition, the suture line was buttressed with a pedicle flap of prevertebral fascia. The incision healed per primam and he was discharged on July 2, 1953. He has been completely relieved of all symptoms and postoperative X rays show a normal appearing esophagus.

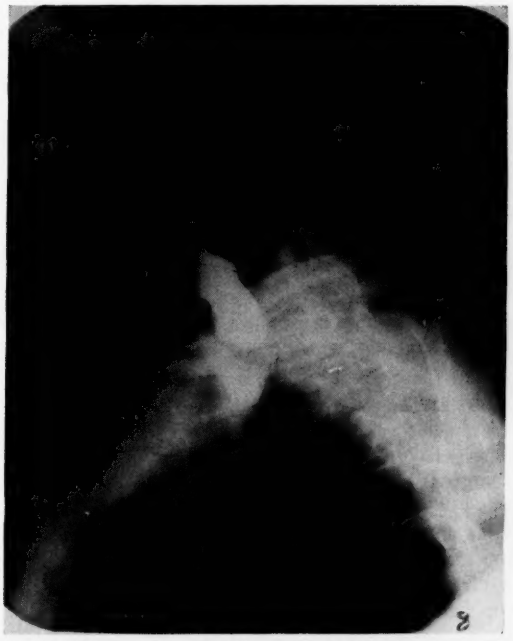

FIGURE I. Case I. Shows the typical pulsion diverticulum of the pharyngo-esophageal type.

Achalasia

Although the majority of patients with achalasia have been treated by dilatation and should certainly be given a reasonable trial by this method, the more intractable cases must be treated surgically. In fact, the trend during recent years has been to advise surgery earlier in the course of the disease before

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a chronically dilated and atrophic esophagus develops. An additional factor is that many patients are reluctant to submit to repeated bouginage over a period of years in order to swallow with comfort.

Various corrective procedures have been suggested, but in our opinion the Heller operation, which is similar to the Ramstedt operation for pyloric stenosis, is the simplest and most logical. Incision is made through about 4-5 cm. of the esophageal wall at the esophago-gastric junction down to the mucosa. The muscular ring is separated about 1 cm. and sutured in its new position to avoid reapproximation. In the past, we have employed more radical methods of the Heineke-Mikulicz type, but this tends to open up the esophagus too widely and results in regurgitation of gastric secretions with resulting esophagitis. Following corrective operations, although the symptoms are immediately relieved, a considerable period of time may elapse before the esophagus returns to normal.

Case II. W.M., a thirty-nine-year-old white male, was admitted to the Rhode Island Hospital on November 3, 1953, complaining of difficulty in swallowing for six years. A gastrointestinal series in 1938 had shown a duodenal ulcer for which he had been on a diet. His dysphagia had been increasingly troublesome and he formed the habit of drinking large quantities of water to wash down solid foods, but for two weeks had had difficulty in swallowing liquids. A barium swallow at this time showed the esophagus to be at least 2½ inches in diameter and to contain a large amount of food particles. A small trickle of barium entered the stomach through a smooth, narrowed esophagogastric orifice. No ulcer or tumor was present.

On October 30, 1953, a Heller esophagoplasty was carried out through a left thoracic approach. Convalescence was uneventful and he was discharged on the 9th postoperative day. He had dramatic relief from all symptoms and was immediately able to swallow all foods without difficulty and in four months had gained from 142 to 175 pounds. His last X ray taken on May 12, 1956 showed a normal appearing esophagus. He has had no further difficulty.

Chronic Stricture and Ulceration

Stricture of the esophagus usually follows chronic ulceration from acid regurgitation due to incompetence at the esophago-gastric junction with or without hiatus hernia or to swallowing of corrosive materials. Complete obstruction not infrequently occurs. In many instances, bouginage is effective, but one should be very certain that he is not dealing with malignancy and a single esophagoscopy may not be sufficient to rule this out. We have personally observed cases in which the erroneous diagnosis of both stricture and achalasia were at operation proven to be carcinoma.

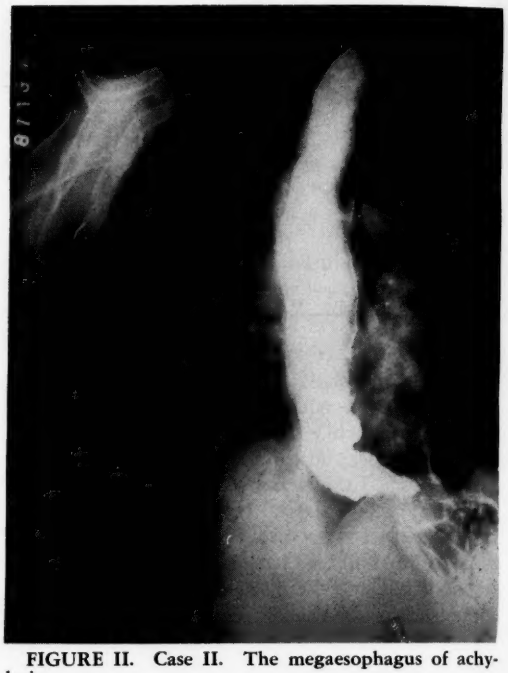

FIGURE II. Case II. The megaesophagus of achylasia.

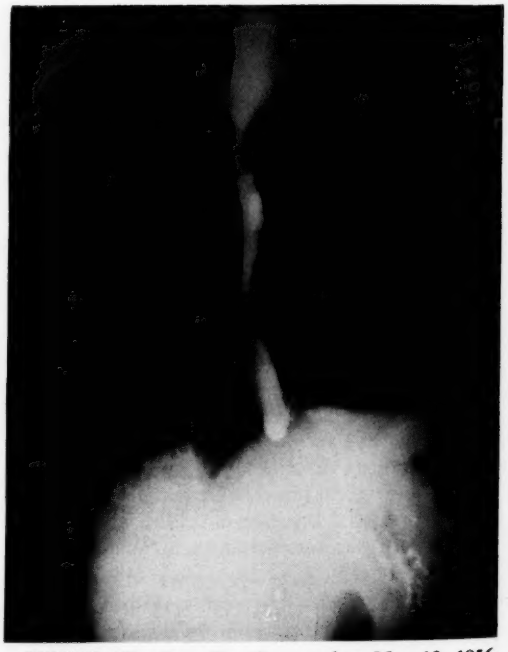

FIGURE III. Case II. X ray taken May 12, 1956, showing the esophagus to be of normal size.

We have learned through experience that when the esophagus is transected, the vagotomy effect may cause delay in gastric emptying. A pylo-

roplasty should, therefore, also be done in order to avoid gastric stasis that is usually associated with a complete vagotomy.

Excellent results are obtained in resection of benign strictures at all levels and the following cases will serve as illustrations.

Case III. H.P., a sixty-one-year-old white female, was admitted to the Rhode Island Hospital on July 13, 1953 with a history of being unable to swallow solid foods for six years. There was no history of swallowing of corrosives or a foreign body. For several weeks, she had been unable to swallow anything but clear liquids. Esophagoscopy was carried out. A very hard stricture was found on the right lateral posterior wall five inches above the cardia. Several biopsies were taken and bougies were passed into the stomach. It was the impression of the bronchoscopist and also the radiologist that the lesion was malignant.

Operation was carried out on July 15, 1953. The esophagus was explored through the right chest. After the lesion had been completely mobilized, it was difficult to be certain whether or not we were dealing with malignancy. The esophagus was, therefore, opened and explored. There was marked thickening of the entire wall with replacement by fibrous tissue and almost complete obliteration of the lumen. It appeared quite certain that we were not dealing with tumor. It was possible by enlarging the hiatus to deliver the fundus into the right chest and carry out an esophago-gastrostomy after resecting the lower third of the esophagus. This patient's convalescence was complicated by very severe staphylococcus enterocolitis, but she had no other complications. She was discharged on August 7, 1953 at which time an X ray showed a normally functioning esophago-gastric anastomosis. Pathological examination showed chronic ulceration and inflammation extending deep into the musculature.

The following case illustrates stricture formation from regurgitation of gastric juice that resulted from a long neglected hiatus hernia.

Case IV. C.P., a forty-year-old white male, entered the Rhode Island Hospital on February 12, 1957. This patient's symptoms began eighteen years prior to admission when he noted some difficulty in swallowing solid foods. These complaints became much more severe two years prior to admission. He also had pain at the lower end of the sternum after each meal. After the first few swallows, he had a sensation of being filled up and had to discontinue his meal. He frequently induced vomiting in order to obtain relief. He developed the habit of attempting to wash down his food with large amounts of water. By resorting to a liquid diet, he had been able to maintain his weight. On February 14, 1957, a transabdominal repair of a hiatus hernia was carried out. There was found to be marked scarring of the lower esophageal segment. The stomach was opened and the stricture was dilated from below. Patient's convalescence was completely benign and he was discharged on his seventh postoperative day. All symptoms were relieved, but the patient was warned that because of the chronic nature of his stricture, occasional dilatations may still be required.

FIGURE IV. Case IV. Stricture of lower esophagus due to regurgitation of gastric juice. Esophageal hiatus hernia with incompetence of the esophago-gastric valve mechanism was the etiological factor.

Repair of esophageal hiatus hernia has been personally carried out in seventy-six cases. Indications for operation vary considerably and include persistent indigestion, vomiting, bleeding, and substernal pain. The ease with which this defect can now be corrected should stimulate us to urge repair before unfortunate sequelae, such as are illustrated in Case IV, have occurred.

Benign Tumors

Benign tumors of the esophagus are relatively rare and may cause no symptoms unless they attain considerable size. Leiomyoma is the commonest benign tumor and can usually be removed without resecting the esophagus.

Case V. M.G., a fifty-two-year-old white female, was examined on June 2, 1950 because of vague abdominal pain and symptoms rather suggestive of ulcer disease. A gastrointestinal series was done at this time and was entirely negative except for the presence of a rounded tumor, 2 x 1.5 cm., in

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the lower third of the wall of the esophagus. This was clearly outlined and a diagnosis of leiomyoma was made by the roentgenologist.

Operation was carried out through the left chest on June 7, 1950. There was a palpable mass at the junction of the lower and middle third of the esophagus which was smooth, round, and freely movable. A transverse incision was made through the musculature of the esophagus and the tumor shelled out without difficulty. The defect in the esophageal wall was closed with interrupted silk sutures. She had a benign convalescence and has continued to be asymptomatic during the past seven years.

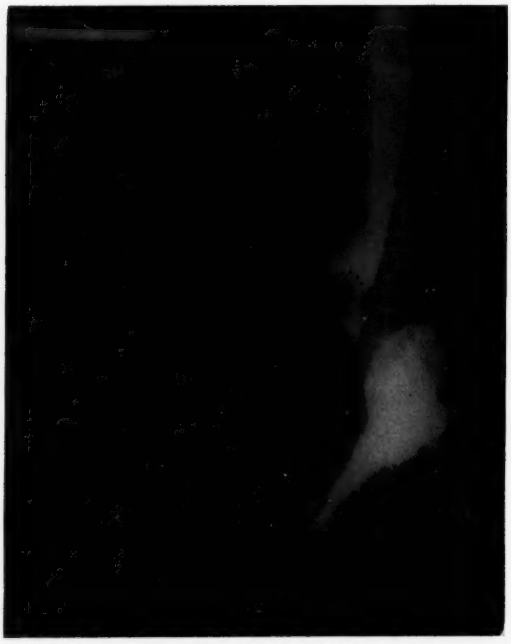

FIGURE V. Case V. Leiomyoma of esophagus.

Malignant Neoplasms

The diagnosis of carcinoma of the esophagus can usually be readily made by means of X ray and endoscopy, although the occasional case, especially those in which biopsy is negative, may present problems in diagnosis that can only be answered at the operating table. Fortunately, these cases are few. The diagnosis having been made, the next problem that presents itself is whether or not the case is hopelessly inoperable, a palliative type of resection can be considered, or finally whether radical resection with the hope of a cure can be undertaken. X-ray treatment is worthy of trial in the far advanced poor risk case, but is frequently disappointing.

With the improvement in surgical technique, it is gratifying to realize that these patients, many of whom are quite elderly, withstand surgery remarkably well. The type and extent of the operation to be carried out requires considerable experience and judgment.

In the hopeless case, gastrostomy has been widely used to avert death by starvation. During the past few years, newer techniques have been developed which allow these patients to swallow normally. Bypass operations, with or without removal of the lesion, can be successfully accomplished and are superior to replacement with plastic tubes. These methods may be very worthwhile since gastrostomy, when associated with complete esophageal obstruction, has never been satisfactory and does not eliminate regurgitation of saliva. Even in those who are doomed, there is considerable satisfaction in having them swallow normally the remaining time that they have to live.

Lower One-Third

Malignancies of the esophago-gastric junction and lower third of the esophagus are responsible for about 50% of esophageal malignancies. Fortunately, this area is the most accessible and the overall results are better than at higher levels. The esophagus is easily exposed either through the lower thoracic or the thoracoabdominal approach. The lower third of the esophagus and upper one half of the stomach with all gland-bearing areas is resected and the gastric remnant is brought up into the left pleural cavity and anastomosed to the esophagus, thus re-establishing gastro-intestinal continuity. Cure can be hoped for if an early lesion presents itself.

Case VI. J.C., a forty-seven-year-old white female, was admitted to the Rhode Island Hospital on November 16, 1951. She complained of discomfort in the pit of the stomach after eating both liquids and solids. These symptoms had been present for about six weeks. All food seemed to stick on the way down. Belching had also been very troublesome. X ray revealed the presence of a moderate sized filling defect at the esophago-gastric junction on the posterior wall and extending down on the lesser curvature to the region of the media. Operation was performed on November 19, 1951. A large malignant tumor which occupied the lower end of the esophagus and proximal stomach was radically excised and a primary anastomosis carried out. Pathology report was adenocarcinoma originating in the stomach with metastases to two lymph nodes.

The patient made an uneventful recovery and was discharged from the hospital on her twelfth postoperative day. This patient did well for four and one-half years, at which time she showed evidence of recurrence and died five and one-half years following operation.

Case VII. R.M., a twenty-nine-year-old single white female, was admitted to the Rhode Island Hospital on July 10, 1950. The patient had had a

long history of anemia and weight loss which dated back over a four-year period. She had been admitted to hospitals in nearby cities, but no diagnosis had been made in spite of X-ray studies. On admission, the patient's hemoglobin was 6.4 gm. and red count was 2,400,000. A gastrointestinal series revealed a filling defect at the esophago-gastric junction. The X-ray opinion was "probably malignant neoplasm of the fundus of the stomach."

Operation was performed on July 20, 1950. A stony hard tumor, 8 cm. in length and 5 cm. in width, involving the lower two inches of the esophagus and the upper stomach was widely resected. The stomach was brought up into the chest where an esophago-gastric anastomosis was done. She was discharged on the twelfth postoperative day after a benign convalescence. The pathological examination revealed the tumor to be a plasmocytoma. The patient's convalescence during the next several months was very slow and inclined to weight loss. Her appetite was poor and it was feared that there might have been recurrence of her lesion. In October, 1950, she was readmitted to the hospital with renal colic at which time a gastrointestinal series showed a good functioning stoma with no tumor recurrence. However, the gastric peristalsis was very sluggish. She had occasional vomiting with occasional blood streaking. After this first year, she has done well and has gained twenty-eight pounds since her hospital discharge. She has returned to her full-time job and is completely symptom free six years and nine months following the operation.

FIGURE VI. Case VII. Showing large filling defect at the esophago-gastric junction.

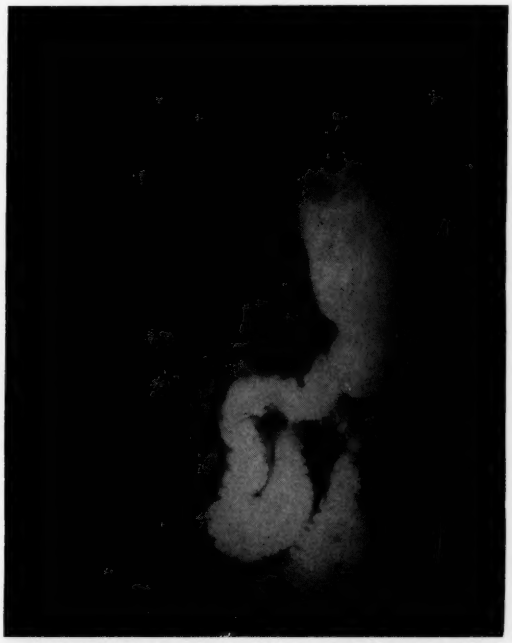

FIGURE VII. Case VII. Postoperative X ray showing normal function after resection of the lower one third of esophagus and upper stomach.

Case VIII. R.W., a sixty-one-year-old white female, was admitted to the Rhode Island Hospital on February 6, 1957. She stated that she had been in good health until two months prior to admission when she developed rather marked anorexia and occasional vomiting. She gave no history of hematemesis or melena. She had had no particular difficulty in swallowing solid food. A gastrointestinal series taken prior to admission showed a filling defect at the esophago-gastric junction consistent with a malignant tumor.

Operation was carried out on February 11. An abdominal incision was made and the lesion explored. It was found to occupy the upper stomach and lower portion of the esophagus and was about 7 cm. in diameter. Since it appeared to be resectable, the incision was extended into the left pleural cavity. The resection included the lower one third of the esophagus and the upper half of the stomach, the spleen, the tail of the pancreas, and a wide resection of all gland-bearing areas in this region. After closing the end of the gastric remnant, it was brought up into the left pleural cavity where it was anastomosed to the cut end of the esophagus. The diaphragm was closed about the stomach and as a final step, a pyloroplasty was carried out.

Her convalescence was remarkably benign and

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she was able to take soft solid food at the end of one week. The wound was well healed at the end of ten days and she was ready for discharge two weeks following operation. However, because of home conditions, she elected to stay in the hospital and was discharged on her twentieth postoperative day.

FIGURE VIII. Case VIII. Showing large filling defect involving the lower end of the esophagus and upper portion of the stomach.

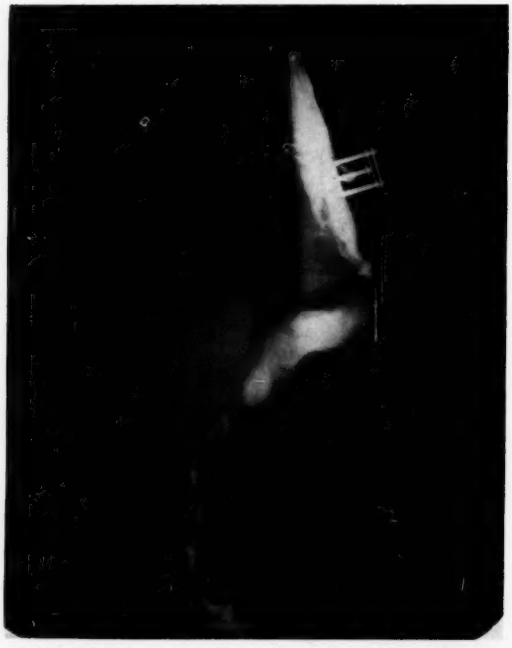

FIGURE IX. Case VIII. Showing small gastric remnant with a well-functioning anastomosis.

A large number of cases in this region occur in the older age group. We have been impressed with how well patients eighty years of age and over withstand resections similar to those carried out in Cases VI, VII, and VIII. Many come to the attention of the surgeon in an advanced stage of the disease, but in most instances, the lesion is resectable even when incurable, thus allowing for normal swallowing during the rest of their lives. This obviates the necessity of maintaining nutrition by means of gastrostomy and intravenous feeding.

Middle One-Third

About 35% to 45% of carcinomas of the esophagus occur in the middle third. This region is somewhat more difficult to deal with than lesions in the lower third. However, there have been great improvements in the surgical management in this area and resection should be advised in most cases. At least good palliation can be expected and if the lesion is not far advanced, a cure may be hoped for.

The surgical approach may be made through either the right or the left chest. We have had experience with both and very much prefer the right chest approach. After removal of the lesion, the stomach can be readily brought to any level in the right pleural cavity and the continuity of the gastrointestinal tract be re-established. Since the surgical procedure is of greater magnitude, a somewhat higher mortality is to be expected. The following case illustrates resection at this level.

Case IX. F.S., an eighty-one-year-old white male, entered the Rhode Island Hospital on June 11, 1954 with the complaint of difficulty in swallowing for over seven months. This had become progressively worse and at the present time, food seemed to stick and cause acute substernal pain. He had not vomited. Esophagoscopy revealed a considerable amount of undigested food in the esophagus. After this was removed, a hard shelving tumor was found on the right lateral wall. There appeared to be some fixation. Biopsy of the lesion was positive for carcinoma. Patient had been operated on about ten months previously for a strangulated hernia which was complicated by auricular flutter.

Operation was performed on June 21, 1954 through a combined right chest and abdominal approach. The lesion in the mid-esophagus appeared relatively small. The lower two thirds of the esophagus was resected and the stomach brought high into the right pleural cavity where a primary anastomosis was carried out. A pyloroplasty was also done.

Patient's immediate postoperative recovery was very good, but later was complicated by tachycardia

and a toxic psychosis. There was also some evidence of mediastinal bleeding. At this time, his condition was rather critical, but rapidly improved and one week following operation, he was able to swallow a full liquid diet without difficulty. A gastrointestinal series taken ten days after operation revealed a normally functioning stoma and a good emptying from the pylorus. He was discharged on his seventeenth postoperative day. At home, he has continued to show gradual improvement and has had no difficulty in eating a normal diet. He is active and well in May, 1957, almost three years following operation.

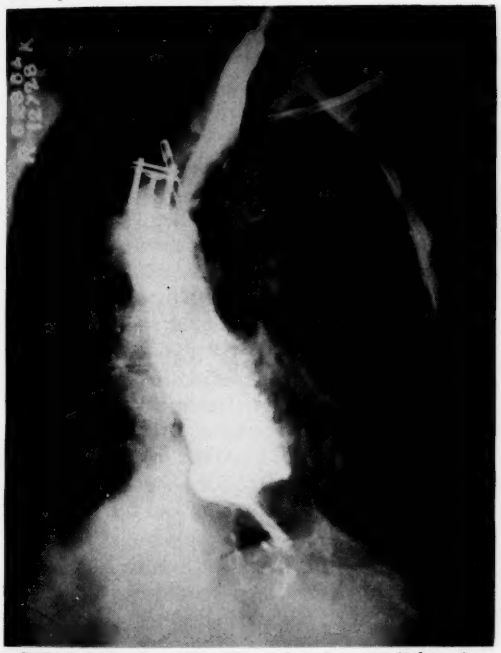

FIGURE X. Case IX. X ray showing a well-functioning esophago-gastric anastomosis just below the level of the clavicle.

Upper One-Third

Resections of malignancies located in the superior mediastinal segment of the esophagus present greater technical difficulties than those at lower levels. However, since the mobilized stomach can be brought to the cervical region without difficulty, the operation is carried out along similar lines as for tumors located in the middle one-third. Here again the stomach is brought out through the right pleural cavity and into the neck through an incision along the anterior border of the sternomastoid where the anastomosis is completed. In poor-risk patients, where only a bypass is possible, we have also employed a substernal tunnel which eliminates the hazard of a transpleural operation. Segments of jejunum and also colon have been utilized where almost complete replacement of the esophagus is necessary for malignancies and extensive strictures.

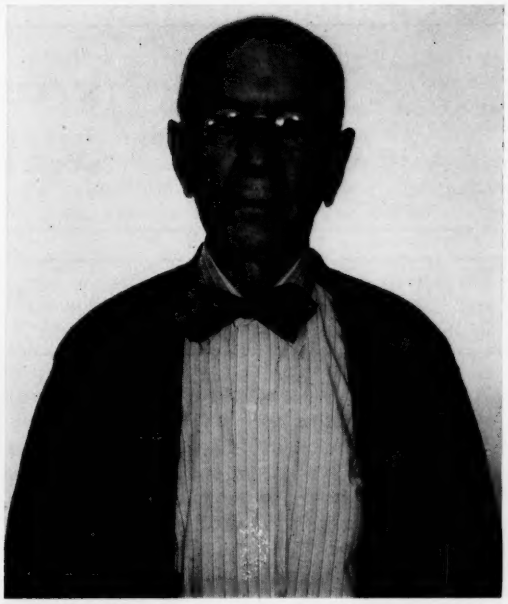

FIGURE XI. Case IX. This eighty-four-year-old man is alive and perfectly well nearly three years following almost total removal of the esophagus for undifferentiated carcinoma with metastases to lymph nodes.

SUMMARY

A brief survey of improved methods for dealing with benign and malignant lesions of the esophagus is presented. Case reports of patients personally operated upon are included as illustrations.

REFERENCE

[1]Beardsley, J. M.: Diverticulum of Esophagus. Am. Journal of Surgery. 88:331-332, 1954

INTERIM MEETING . . .

3:00 P.M. on November 13

INFLUENZA*

LEROY E. BURNEY, M.D.

The Author. *Leroy E. Burney, M.D., Surgeon General, United States Public Health Service, Department of Health, Education and Welfare, Washington, D.C.*

DURING RECENT WEEKS the eyes of the medical profession have been on the influenza epidemic which swept through the Far East. Thus far only sporadic outbreaks have occurred in this country, affecting several thousand people. Experts in the field say there is little question that we will have an epidemic in this country some time during the fall and winter months.

Since 1948, the Influenza Study Program sponsored by the World Health Organization has maintained a system of reporting specific diagnoses of influenza in the United States, Canada, South America and Europe.

The current epidemic was first reported in Hong Kong and Singapore in late April, 1957. Epidemics followed rapidly in Taiwan, the Philippines, the Malay States, Japan, India and other areas. Virus sent to this country for antigenic analyses were found to be type A, but antigenically different from any previously known A strains in the hemoagglutination inhibition test. Animal anti-sera prepared against type A strains did not inhibit or neutralize the new variant and no protective antibody could be demonstrated in sera from human beings repeatedly vaccinated with previously prevalent type A virus.

Information to date suggests that little protection against the new virus is gained by previous vaccination with existing influenza vaccine.

Beginning June 2, a series of influenza outbreaks were reported among ships which had been berthed in Narragansett Bay, Newport, Rhode Island. Spread of the epidemic was erratic. Subsequent infections have been reported in San Diego, Monterey, Davis and San Francisco, California; Cleveland, Ohio; Lexington, Kentucky; Valley Forge, Pennsylvania; Salt Lake City, and Grinnell, Iowa.

Clinical and Public Health Aspects

The experience in Asia and in the United States provides no basis for predicting an increase in severity of infection in the coming fall and winter or during the next year or two. The present concern arises largely from the possibility that a more virulent variety of the Asian type may emerge. The severity of the 1918 epidemic is believed to have been due to some mutation which exposed the population to a virus or viruses radically different antigenically from those strains to which they had been previously exposed.

Influenza is usually characterized by abrupt onset, prostration, fever up to 104°, headache, myalgia, cough and sore throat. X-ray examinations of the chest usually show no abnormal findings. Leukopenia is common in uncomplicated cases. The febrile period usually lasts three to five days, following which the patient may complain of extreme weakness for several more days.

In laboratory diagnosis of individual cases, the virus may be isolated from secretions of the nose and throat early in the course of the illness. The procedure consists of inoculating chicken eggs which have been incubated for about ten days, and recovering the virus in the fluids of the embryonic sac.

Paired specimens of blood, one taken in the acute phase and the other ten days to two weeks later, may be used for serological tests. A fourfold or greater rise in antibody titer is regarded as an indication of influenza infection. Since neither of these laboratory procedures can be completed while the patient is still acutely ill, they are of little value to the physician in prescribing treatment. Such tests are necessary, however, to confirm the presence or absence of influenza in a community.

Immunological Aspects

Studies in the military reveal that a properly conditioned vaccine is 70 per cent effective under epidemic conditions and that reactions to the vaccine are quite rare. Individuals known to be sensitive to egg are *not* given the vaccine since virus is grown in embryonated eggs.

The manufacturers of vaccines are able to produce a satisfactory monovalent vaccine (containing the Asian strain) in sufficient quantity for civilian use this winter. They are currently working on a large-scale production basis.

*A condensed version of an article published in complete form in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

Present Considerations

Isolation of causative virus has been made prior to the appearance of influenza in the United States; thus for the first time in history we are in the fortunate position of being ahead of an impending epidemic of influenza. It seems probable that influenza will continue to spread for the remainder of the summer months but will not be highly epidemic in this country until fall or winter when outbreaks may be anticipated. While the disease will probably be mild there is always the outside possibility of a repeat of the 1918 epidemic. There is a further possibility that the virulence of the infection as reflected in case-mortality rates will increase. Even though these are still only possibilities, any preparations which need to be done to meet these eventualities must be accomplished now. After a pandemic starts it will be too late.

At the invitation of the WHO, a plan for investigation of influenza outbreaks in foreign countries has been developed by the influenza commission of the Armed Forces Epidemiological Board. Teams making the studies will be particularly interested in determining (a) the properties of the virus, (b) complete clinical descriptions, (c) whether a bacterial component is associated with the illness, and (d) epidemiologic aspects.

The American Medical Association has already announced a program designed to offset the severe strain placed on medical personnel when so many people suddenly become ill.

Finally, in recent years the nature of influenza in this country has not warranted the use of influenza vaccine except on a group basis to minimize absenteeism or in so-called priority groups. However, the present influenza epidemic, with its rapidity of spread and high attack rate is sufficiently unusual to press for immunization against the new strain of influenza virus. As a properly constituted vaccine is the only preventive for this disease, the Public Health Service with the Association of State and Territorial Health Officers and the American Medical Association plan to promote the use of the vaccine as soon as it becomes available. To accomplish this we plan to embark upon an educational and promotional campaign to encourage all persons who want it to seek influenza vaccine on a voluntary basis. Any such campaign must be conducted in an orderly fashion to avoid confusion and hysteria in the public and will call for the combined efforts of all of us.

SUMMARY

1. Influenza has been known for centuries under a variety of names, but except for the pandemic of 1918. the illness was regarded lightly.

2. For the past twenty-five years it has been possible to incriminate certain strains of Type A virus and Type B virus as causative agents of cyclic outbreaks of influenza.

3. The current epidemic in the Far East and sporadic outbreaks in the United States and elsewhere is caused by a new strain of Type A virus popularly known as the Far East strain.

4. There is a distinct probability that the current influenza epidemic will increase and develop into pandemic proportions by late fall or winter. Also there lurks the possibility of an increase in virulence of the infection as reflected in case-mortality rates.

5. A properly constituted vaccine containing the new strain of Type A virus represents the only preventive tool at our command.

6. Influenza vaccines have been proven effective and safe in controlled studies conducted by the military.

7. The Public Health Service, in cooperation with the State and Territorial Health Officers and the American Medical Association will stimulate and promote a nationwide voluntary program of vaccination against the prevalent strain of influenza.

GASTROENTEROLOGICAL CONVENTION

The twenty-second annual convention of the American College of Gastroenterology will be held at The Somerset in Boston, Massachusetts, on October 21, 22, 23.

In addition to the many individual papers to be presented, there will be panel discussions on chronic ulcerative colitis, diseases of the esophagus, peptic ulcer and the management of massive gastrointestinal hemorrhage in patients with liver disease. There will again be scientific as well as commercial exhibits and the sessions will be open to all physicians without charge.

On October 24, 25 and 26, immediately following the convention, Doctor Owen H. Wangensteen of Minneapolis, Minnesota, and Doctor I. Snapper of Brooklyn, New York, will again be the moderators of the annual course in postgraduate gastroenterology. The sessions will be held at The Somerset and in the Joslin Auditorium of the New England Deaconess Hospital. Attendance at the Course will be limited to those who have registered in advance.

This year marks the twenty-fifth anniversary year of the College and silver certificates are to be presented to those who have been affiliated with the organization since its inception.

Honorary fellowships are to be presented to Doctor Chester S. Keefer, Boston, Massachusetts, Doctor William W. Frye, New Orleans, Louisiana, Doctor Stafford L. Warren and Doctor Rafe C. Chaffin, both of Los Angeles, California.

Copies of the program and further information concerning the postgraduate course may be obtained by writing to: *American College of Gastroenterology, 33 West Sixtieth Street, New York 23, New York.*

PENSIONS OR HANDOUTS?*

Social Security Costs Are Getting Out of Control

EVEN in a political off-year, the shibboleth of Social Security apparently enjoys irresistible appeal on Capitol Hill. Since the Eighty-Fifth Congress convened five months ago, the lawmakers have introduced more than a hundred bills designed to broaden the program in one way or another. Representative John Dingell of Michigan, bearer of a name celebrated in welfare circles, is seeking to increase existing benefits and taxes on many now covered. That ubiquitous Texan, Rep. Wright Patman, urges that Washington provide retirement income for every U. S. citizen 65 or older. Not to be outdone, Rep. Thomas Lane of Massachusetts has tossed into the hopper a measure to "provide a direct national pension of at least $150 per month to all Americans who have been citizens 10 years or over."

Such open-handed proposals invariably win acclaim, and usually more tangible rewards at the polls, for their sponsors. Only a few curmudgeons, indeed, ever have bothered to inquire into the ultimate cost of Social Security. Admittedly, the future is difficult to foresee. But even today it is increasingly evident that the whole welfare scheme is heading for trouble. The alarming fact is that years ahead of schedule, the growth of the Old Age & Survivors Insurance Trust Fund has come to an end. Indeed, at the moment it is paying out more than it is taking in. The unexpected deficit should serve as a red flag to the Treasury, the taxpayer and all those who are looking forward one day to receiving retirement checks of their own. However generous its motives, even a federal pension fund cannot forever go on incurring obligations which exceed its resources.

* * *

For years Washington has chosen to ignore this plain truth. Since its birth in the dark days of the depression, Social Security repeatedly has been made more liberal. By election-year leaps and bounds—in 1950, 1952, 1954 and 1956—Congress has added to the rolls new workers, notably civil servants and the self-employed, many of whom, after only 18 months of contributions, now are qualifying for lifetime pensions. So fast have the numbers grown that just last week flash bulbs popped in New York City as Secretary Marion Folsom handed the ten-millionth living recipient her first check. Moreover, since 1950 the maximum monthly payment has more than doubled—to $108.50 for a retired worker, and $162.80 for a married couple. In 1956, the minimum retirement age for women was lowered to 62. Even more significant, for persons 50 and older, the wholly new principle of compensation for physical disability was introduced.

* * *

Bi-partisan generosity with the taxpayers' money, moreover, seems far from ended. As noted, Congress has before it today a host of proposals for more expansive coverage. These measures, among other things, would add new beneficiaries: dependent parents, brothers and sisters, children in process of adoption, Gold Star Mothers and survivors of individuals who died before 1940. Other bills seek to raise, by varying amounts, the size of the monthly checks. Some propose to lower the age limits for eligibility—to as low as 55 under one bill. Finally, Mr. Dingell wants to increase from $4,200 to $6,200 a year the amount of earnings on which existing taxes and benefits are calculated, thus bringing in more revenue immediately and paving the way for larger disbursements.

However humanitarian, this Santa Claus spirit hardly could be less timely. For the cruel truth—unnoted in last week's ceremonies—is that the Social Security Administration is running through its money faster than anyone had dreamed. The first hint of trouble came in fiscal 1956, when the trust fund's net gain of $1.4 billion fell some $100 million short of original estimates. For the current fiscal year, too, the anticipated billion-dollar rise already has been scaled down by one-fourth. As for fiscal 1958, the forecast of the official soothsayers is that their coffers will swell by a mere $120 million. Yet even this appraisal appears too sanguine. In April, as farmers, among others, began drawing their first payments, outlays spurted to an unprecedented $664 million. At that rate, nearly $8 billion a year, Social Security actually would run a deficit in fiscal '58.

One way to deal with this ever-mounting burden, of course, is to step up revenues. Mr. Dingell's measure is one attempt. However, it has some obvious defects. For example, it would increase the levies only on persons earning more than $4,200. For those slated to bear the burden, the additional income, when and if received, would be less than proportional to the outgo. A prudent man in that bracket would fare better by taking out private insurance, tailored to his own particular needs. Even without further deductions from his wages, the taxpayer now must carry a relatively heavy load. Today, Social Security exacts 2¼% of everything a job holder earns up to $4,200, and an equal amount from his employer. Furthermore, the bite is scheduled to get worse. In 1960 the payroll tax automatically will rise to 2¾%; by 1975 it will have reached 4¼%. The quest for Utopia, it seems, comes higher than advertised.

* * *

Beyond a doubt, security in old age is a desirable goal, for the individual and for society. However, the question of cost simply cannot be ignored. As the latest figures reveal all too clearly, the government program is reaching the point of diminishing returns. Despite the wishful thinking of zealous politicians, the cornucopia, after all, is not inexhaustible. In the light of recent experience, then, the U. S. surely needs to call a halt to helter-skelter and misguided philanthropy. Otherwise, the nation one day is apt to discover that in trying to bestow on some a greater measure of security than they have earned, it has robbed others of their due.

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* * *

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CLINICAL OBSERVATIONS WITH PHENAGLYCODOL IN HYPERTENSION WITH ANXIETY STATES

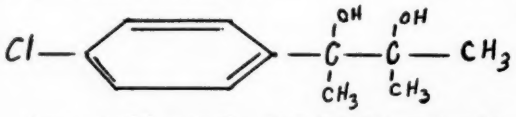
DONALD L. DENYSE, M.D.

The Author. *Donald L. DeNyse, M.D., Senior Physician, Department of Medicine, and Vice President of the Medical Staff Association, The Roger Williams General Hospital, Providence, Rhode Island.*

IN RECENT YEARS, the number of drugs possessing a tranquilizing effect has grown to an impressive list. Much has been printed regarding their action, side-effects, and benefits. Recently a new chemical, Phenaglycodol,* has been synthesized. This chemical compound is one of a group of butanediols synthesized at the Lilly Research Laboratories. Investigations at the preclinical level on laboratory animals revealed promise. In laboratory and controlled clinical trials Phenaglycodol was found to be free of any serious side-effects. The hypotensive effects of other tranquilizing drugs have been found to be of value in the treatment of hypertension, yet many have undesirable side-effects. Since the reports on Phenaglycodol disclosed so few side-effects, a study on the clinical level was undertaken on office patients, seen in an average private practice, and also on some hospitalized patients.

Pharmacology[3]

The new drug Phenaglycodol was used as Comp #18132 and designated Compound "O," 300 mg. capsule. Chemically, it is a 2-p-chorophenyl-3-methyl-2, 3-butanediol. It is a stable compound with a molecular weight of 214.5 and a melting point of 77°-78°C. It is relatively insoluble in water, but quite soluble in many alcohols and oils. The structural formula is:



Acute toxicity studies revealed Phenaglycodol to have anticonvulsant and hypnotic effects on animals. It has a very wide margin of safety (LD_{50}/ED_{50}). The oral LD_{50} of the compound was found to be 832.4 ± 37.5 mg per Kg in rats and 637.5 ± 31.9 mg per Kg in mice.

*The Phenaglycodol used in this study was furnished by J. M. Mass, M.D., of the Clinical Research Division, Eli Lilly Co., and has recently been released as *Ultran*®.

The median sedative dose and its standard error (SD_{50} ± S.E.) was determined in rats and mice. The oral SD_{50} was found to be 86.48 ± 6.05 mg per Kg in rats and 98.33 ± 5.9 mg per Kg in mice.

The median hypnotic dose and its standard error (HD_{50} ± S.E.) was also determined in rats and mice. Here the most readily detectable symptom of C.N.S. depression was the first loss of the righting reflex, manifested by more pronounced ataxia, in which the affected animal not only staggered but also fell. The oral HD_{50} was 165.4 ± 16.6 per Kg in rats and 187.1 ± 13.1 mg per Kg in mice.

The median effective antielectroshock dose and its standard of error were 62.96 ± 6.55 mg per Kg in rats and 87.54 ± 9.34 mg per Kg in mice.

Chronic toxicity studies were carried out on three species of laboratory animals—rats, dogs, and monkeys. All gained weight and showed no toxic signs. C.B.C. and bone marrow studies revealed no hematopoietic damage. Blood sugar levels and N.P.N. values, clotting times, and clot retraction times were unchanged. There was no gross or microscopic change in liver, kidneys, or bone marrow.

Mode of Action

Slater and his co-workers[1] compared Phenaglycodol with the barbiturates and found a material difference between them. The animals were quiet but not sleepy; some showed muscle weakness though not ataxic. In mice, cats, and monkeys Phenaglycodol had properties in common with the interneuronal blocking agents, such as mephenesin.

Reitan's[2, 4] findings are also of note. He demonstrated, after careful measure of interference with brain function, that Phenaglycodol did not interfere with the usual mental skills or the performance of physical tasks.

Method of Study

Patients were selected at random from the author's private office practice and from patients seen in the hospital, both private and on the medical house service, over a period of ten (10) months. All patients had hypertension of mild to severe degree. The mild cases had a normal diastolic and a systolic pressure to 180 M.M.Hg. Severe cases were those with an elevated diastolic and a systolic pressure over 180 M.M.Hg. Sedatives previously pre-

scribed, were withdrawn and Phenaglycodol substituted. All patients had a C.B.C., B1. Sugar, B.U.N., and complete urine analysis. Any history of liver disease eliminated the patient from the group. At the end of one and two months, the above laboratory procedures were repeated, where possible. Patients were rechecked at a two-week or one-month interval, unless hospitalized.

Dosage

Initial dosage was one 300 mg capsule q.i.d. for one week, then t.i.d. Patients were instructed to make a report if unusual symptoms developed. Later, dosage was reduced to b.i.d. in many, and in some, one capsule daily was sufficient.

Number of Cases Studied

Mild Hypertension	75
Severe Hypertension	36
Total	111

Clinical Findings

The patient response was recorded in four classes, and tabled as follows:

	Excellent	*Good*	*Fair*	*Poor*
Mild Hypertension	45	20	8	2
Severe Hypertension	4	12	3	17

The severe hypertensives were of the "essential" as well as of the "malignant" form. Of the latter, many had advanced arteriosclerotic heart disease. All patients studied had various degrees of anxiety, nervous tension, and symptoms related to those conditions. In the mild hypertension, all but two had elevation of blood pressure due to the anxiety state.

The patients showing good to excellent clinical response revealed benefit at the first two-weeks' interval check-up and noted an effect in two to four days themselves. There was a complete loss of annoying insomnia. They could think clearly and their reflexes were not slowed. Less fatigue was a common improvement. Pulse rates became normal and B.P. findings gradually showed a lowering to normal limits. Not one showed any hypotension and no depression of the pulse rate below normal was noted. There was no orthostatic vertigo. With the relief of tension, appetites improved and patients had a sense of general well-being and interest in life.

All patients were checked carefully for signs of toxicity. There was no depression of the hematopoietic system, no cutaneous rashes, no liver disturbances, and no signs of kidney irritation or crystaluria.

Side-effects were encountered in only six patients. These consisted of mild gastric irritation, with nausea and heartburn, and was noted by the patient after the first day of taking the drug. One patient was over-stimulated. This was confirmed by placing the contents of the capsule into another color capsule with the same response: tachycardia, irritability, and insomnia not previously present, was noted. This was an idiosyncrasy to all meprobamates in this individual. One patient said she was depressed by the drug and did not take it after five days. However, I feel this was not a true drug depression and found out later that she was depressed by the death of a close relative—not by any medication.

The group of thirteen, showing poor response were, for the most part, suffering from various stages of arteriosclerosis. The remaining four were psychotic, not previously or since, helped by any form of mild sedation. A patient with alcohol-induced Wernicke's encephalopathy showed no response, even to 600 mg q.i.d. A female ward patient, who had consumed ½ grain of Phenobarbital for over three years, revealed no benefit from Phenaglycodol.

Case Summaries

A.R.—This man, forty-six years old, had several years of family and business tensions. His vague upper abdominal complaints were magnified, in his imagination, to severe pain. His visit to a famous diagnostic clinic relieved him of his polyps (sigmoid), but not of his fears and symptoms, his anal pruritus, or his mild hypertension. After a crisis of psychogenic syncope, he was given Phenaglycodol, was relieved of his symptoms and convinced of their tension origin. Now he is well-controlled on a capsule b.i.d. or one daily, as needed.

R.P.—This man, fifty-three years old, is a production coordinator in an active and progressive firm. He has been tense, energetic, and aggressive. Periodically, this produced a duodenal ulcer, mild hypertension, and chronic fatigue. On Phenaglycodol he is able to think clearly and be active; no tension symptoms develop, he sleeps well, without "sleep pills," and is normotensive, without G.I. complaints.

D.S.—This forty-three-year-old bank teller has had frequent episodes of mild hypertension, nausea, "butterflies" in his stomach, and insomnia. Occasionally he was so upset that he was afraid he would make mistakes in his work. Response to Phenaglycodol was slower than in many, but at the two-week check-up, he felt better and was sleeping well. In a month the gastric symptoms had subsided and his B.P. was 132/80 from a previous 168/84.

W.S.—Fifty-eight year-old machinist, a hypertensive for years. B.P. 218/124. Some tremor of right hand. Easily disturbed over minor things and a death in the neighborhood really upset him. He showed very little response in two weeks and was given a hypotensive agent. In a month, the B.P. was 172/94, he had lost the tremor of the hand, could think clearly, and was able to do his work more accurately.

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FORM AND FUNCTION IN THE HYPOTHALAMUS

ADDRESSING the British Medical Association in 1919, on *Medicine in the Twentieth Century*, Sir Clifford Allbutt remarked, "What is then this new birth, this revolution in medicine? It is nothing less than its enlargement from an art of observation and empiricism to an applied science founded upon research; from a craft of tradition and sagacity to an applied science of analysis and law; from a descriptive code of surface phenomena to the discovery of deeper affinities; from a set of rules and axioms of quality to measurements of quantity. One of the main lessons of our history has been that, in neglect of research into truths below the surface, medicine, for lack of a deeper anchorage, has always sunk back into empiricism and routine." There are many chapters in the history of medicine which confirm the truth of Allbutt's remarks, but none, perhaps, more illuminating than the story of the growth of knowledge about form and function in the hypothalamus.

Thirty years ago physiologists paid little or no attention to the hypothalamus; it does not appear even in the index to such a popular book as the fifth edition of Starling's HUMAN PHYSIOLOGY published in 1930. In 1940 a symposium on the hypothalamus included forty-two contributors and the published PROCEEDINGS OF THE CONFERENCE contains a bibliography of more than one thousand titles, and since then many have been added to the list.

The anatomists were the first to offer several interesting intimations of the importance of the hypothalamus in the economy of the central nervous system. This small mass of gray matter weighing approximately 4 grams, lies in the base of the ancient brain between the optic chiasm in front and the cerebral peduncles behind; since it is part of the primitive forebrain which has retained throughout its phylogenetic history a remarkable constancy of structure. The topographical relationship of the hypothalamus to the pituitary body is suggestive, since the neuro-hypophysis is a direct outgrowth from the hypothalamus and these two are intimately related by fibre tracts and vascular connections. As Sir W. E. Le Gros Clark remarks, "Anatomically speaking, therefore, the pituitary body and the hypothalamus are to be regarded as components of a common neuroglandular mechanism."

A further anatomical initimation of the impor-

tance of the hypothalamus is its rich blood supply which is derived from all the branches of the Circle of Willis. Furthermore, the supra-optical nucleus of the hypothalamus has the richest capillary bed —2600 capillaries per cubic millimeter of tissue— in the central nervous system. Outside the hypothalamus capillary counts tend to fall well below one thousand.

The histological study of deep affinities within the hypothalamus is equally revealing, for here there are a number of cell groups with their fibre connections which have retained their characteristic and various cyto-architecture, together with their general appearance and relative size in widely different mammalian types, a circumstance which strongly suggests the importance of the hypothalamic contribution to the working of the central nervous system.

The physiologists, by their experimental researches, have amply supported the working hypothesis of the anatomists whose assumption is that differentiation of structure connotes differentiation of function. This has been shown to be true for the mosaic of the cerebral cortex and, in the hypothalamus, is receiving further confirmation. By the experimental production of discrete lesions in this or that area of the hypothalamus, it is possible to activate the somatic expression of emotions, such, for example, as rage. Again, the physiologists are demonstrating that the hypothalamus is involved in the production of cardiovascular reflexes, viscero-motor functions, water metabolism, and sleep. They are showing also, by the electroencephalograph, that the hypothalamus influences, and is influenced by, the cerebral cortex, further evidence of the integrative action of the nervous system.

If Sir Clifford Allbutt were to address us today he might well select the hypothalamus as a paradigm to illustrate how, in the last half century, our knowledge has advanced from a descriptive code of surface phenomena to the discovery of deeper affinities. Many laborers, inspired by the spirit of research, have contributed, each his quota, to the final result. And it is this united, enthusiastic endeavor to search out the secrets of Nature by way of observation and experiment which constitutes the fruitfulness and the fascination of modern medicine.

SOCIAL SECURITY AND DOCTORS

THE PRESS of the country has too often derided the attitude of our medical organizations that have expressed deep concern at the trend toward socialism in this country.

The issue of socialized medicine is made out as a bugaboo of the medical profession, and the public is led to believe that the doctors see in government-sponsored and tax-paid health and welfare plans only a threat to their own private practice. That is true in part only. Doctors see the threat to private medical practice, and they also see the threat to the democratic way of life we like to think we all possess, and that we all claim is the American way. They see a general laxness in watching how our federal government spends the income of this country, promising social security and innumerable other "welfare" projects by which the taxes of one group are siphoned into the pockets of another.

In this issue we reprint by permission of the publisher a thought-provoking editorial from BARRON'S, a national business and financial weekly, that explores the problem under the title of *Pensions or Handouts?—Social Security Costs Are Getting Out of Control.*

This editorial analysis is particularly important to the physician in view of the pressures being exerted in various parts of the nation to bring doctors under the social security system. The bait is most attractive; so far doctors have spotted the hook to which it is attached, and have realized that once they are pulled into the net of old age and survivors coverage, their objections to a national tax system for health care will be minimized on the basis that if one program is acceptable the other should be also.

At the recent meeting of the American Medical Association in New York two resolutions urging national coverage on a compulsory basis for physicians were defeated overwhelmingly. The American doctor has an outstanding example of how socialization works from the experience of his British contemporary.

Doctor Ian D. Grant, in delivering the third James Mackenzie lecture last year before the College of General Practitioners in London, pointed out that although the British general practitioner has never had so many effective weapons in his armamentarium against disease as he has in this Golden Age of Medicine, and though his lot should consequently be improved, yet he reports

> "We are confronted with the psychoneuroses, the schizophrenias, the hysterias, the anxiety states, and the so-called stress diseases. Never were the people of Britain so disease conscious, so drug conscious, and so hospital conscious. In the creation of the Welfare State we have lived through a bloodless revolution. We have completely changed the character and the outlook of

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our people. We have had a great levelling up of things material but little improvement in the responsibilities which the up-grading should provide. . . ."

Late this past spring, Basil L. Walters, executive editor of the *Chicago Daily News,* interviewed Lord Beveridge whose famous report of the 1930's became the blueprint for a socialist experiment, and "government became the guarantor of individual welfare from 'cradle to grave.'" Commenting on the interview, the *Chicago Daily News* editorialized that: ". . . he (Lord Beveridge) confessed that Welfarism has gone far beyond his original dream, and that the unforeseen consequence—inflation—now imposes an insecurity hardly less ominous than that which state benevolence sought to cure. His own resources have been destroyed in value to the point that he says he is 'in danger of living longer than he can afford to.'"

The physicians of America, representing one of the large segments of educated professional men and women, agree that security in old age is desirable, but it must be attained with some degree of personal initiative, and any government subsidy must be made on a sound actuarial basis. Otherwise, as BARRON'S says so eloquently, "Despite the wishful thinking of zealous politicians, the cornucopia, after all, is not inexhaustible. In the light of recent experience, then, the U. S. surely needs to call a halt to helter-skelter and misguided philanthropy. Otherwise, the nation one day is apt to discover that in trying to bestow on some a greater measure of security than they have earned, it has robbed others of their due."

STATUTE OF LIMITATIONS

Every member should carefully read the report in this issue by legal counsel for the society on the subject of professional liability and statutes of limitations in Rhode Island. Those physicians who have noted the fine articles on medical-legal issues that have been published in recent months in the JOURNAL OF THE A.M.A. are aware of the nation-wide interest in the court issues involving medical practice.

As Mr. Williamson states in his report, "the physician, whether he be defendant in a malpractice action or considering the use of the courts to encourage payment from a recalcitrant patient, will find knowledge of the basic provisions of local statutes helpful."

Particularly should doctors note that if they treat a minor they may be subject to a malpractice action within two years of the patient's becoming twenty-one years of age, and this calls for concern relative to the maintenance of records on minors. As legal counsel notes, statutory limitations periods as guides for the keeping of medical records at best provide merely a rule of thumb. But the possession of accurate, dated files certainly would be a notable asset for the physician who must defend his medical service in a court action.

10th ANNUAL

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(Former Director of Pathology Laboratories, Mount Sinai Hospital, New York; and Professor of Pathology, Columbia University, New York)

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PROFESSIONAL LIABILITY AND STATUTES OF LIMITATIONS IN RHODE ISLAND

CHARLES P. WILLIAMSON, ESQ.

The Author. *Charles P. Williamson, Esq., of the firm of Edwards and Angell, Providence, Rhode Island; Legal Counsel to the Rhode Island Medical Society.*

STATUTES OF LIMITATIONS, those barriers which the law interposes to the assertion of stale claims, may affect the physician both as plaintiff and as defendant in actual or potential litigation. The physician, whether he be defendant in a malpractice action or considering the use of the courts to encourage payment from a recalcitrant patient, will find knowledge of the basic provisions of local statutes helpful.

Statutes of limitations are designed to prevent unreasonable delay in bringing suit and thus to protect a defendant or his representatives against the necessity of defending a claim so long outstanding that the evidence is lost or the facts have become obscure from the lapse of time or the defective memory or absence of witnesses.[1] Limitations of actions also serve to prevent the threat of a pending action from being held over a defendant's head for an unduly long period of time. The fundamental presumption underlying such statutes is that one having a well-founded claim will endeavor to enforce it promptly.

Statutes of limitations in force in Rhode Island prescribe the following periods during which the actions specified must ordinarily be brought.[2]

CAUSE OF ACTION	LIMITATION
Slander	One Year
Injuries to the person generally (including actions for malpractice)	Two Years
Trespass (except for injuries to the person)	Four Years
Contract Actions	Six Years
Wrongful Death Actions	Two Years

When does the action accrue?

Under the Rhode Island statute, the limitations period, in most cases,[3] begins to run when the cause of action accrues. The right of action accrues whenever such a breach of duty or contract has occurred as will give a right to bring or sustain a suit.[4] The ignorance of the plaintiff as to the existence of his rights will not prevent the statute from running.[5] If, however, the plaintiff's failure to institute suit is due to the fraudulent concealment of the cause of action by the defendant, the action is deemed to accrue at the time when the person entitled to sue thereon has discovered,[6] or should by reasonable diligence, have discovered, its existence.[7]

Exceptions to the statutes of limitations are prescribed by statute and receive a strict construction by the courts.[8] The statute does not run when the person against whom a right exists in favor of a resident of this state is outside the state and has no property in the state subject to attachment.[9] In such a case, the limitations period runs anew from the time when the defendant comes or returns into the state in such manner that the plaintiff can begin his action against him.[10] If the plaintiff, at the time the cause of action accrues to him, is under twenty-one years of age, of unsound mind, imprisoned, or outside of the United States, the limitations period is considered to begin upon the removal of the impediment.[11] Although no Rhode Island cases have been found specifically applying these exemptions to malpractice suits, there would appear to be no overriding legal reasons why they should not be applied to such actions. However alarming this proves to doctors, they should realize, therefore, that if they treat a minor they may be subject to a malpractice action within two years of the patient's becoming twenty-one years of age. The statute contains a further exception to the general limitations period in providing that an action which survives may be brought by or against the executor or administrator of a deceased person within one year after the decease of that person, even if otherwise barred by the statute of limitations, provided the deceased shall die not later than sixty days after the time specified for bringing the action.[12]

The wrongful death statute, giving a cause of action to the estate of a deceased in behalf of the next of kin, prescribes that an action thereunder shall be commenced within two years after the death of such person.[13] The Rhode Island Supreme Court has ruled that the institution of suit within two years after death is a condition precedent to the action and not merely a procedural limitations period and that, therefore, the exceptions previously mentioned have no application.[14]

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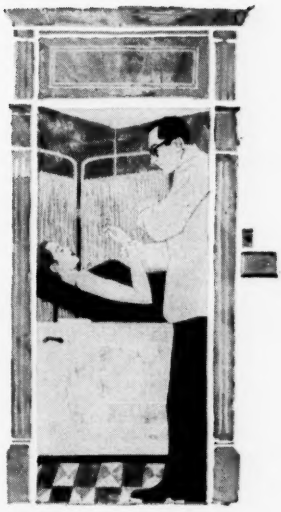

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PROFESSIONAL LIABILITY AND STATUTES OF LIMITATIONS IN RHODE ISLAND

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Malpractice

While, of course, an action to collect a fee is based on a contract and must be brought within six years of the accrual of the cause of action, an action for malpractice against a physician is considered an action in tort under Rhode Island law and subject to the accompanying two-year limitations period. The shorter period applies even when the action is worded in contract, provided it is not based upon an express promise to cure.[15]

Under the principles set forth above, a cause of action for malpractice would accrue at the time the injury is received, provided the action is not fraudulently concealed by the physician.[16] Suit against a physician may, in some cases, take the form of an action for assault and battery, e.g., for an unauthorized operation. Since Rhode Island has no separate limitations period for assault and battery, such an action would again fall under the two-year limitations period prescribed for actions for injuries to the person.

Records

Statutory limitations periods as guides for the maintenance of records by a physician or surgeon at best provide merely a rule of thumb. As mentioned above, there are statutory disabilities which will extend the time in which suit may be brought. In keeping records on minors, the physician or surgeon should especially remember that the statute of limitations does not begin to run against a minor until he reaches the age of twenty-one.

Conflicts with laws of other states

In a state as small in area as Rhode Island, cases frequently arise having factual connections with one or more other states thereby raising conflict of laws problems as to which state's statute of limitations will be applied. The prevailing limitations period is ordinarily that of the state in which the action is brought and not that of the state where the cause of action arose.[17] It should be noted, however, that a suit which arose in another state while the plaintiff resided there is barred in Rhode Island if barred in the state where the action arose.[18] A bill passed at the 1957 Session of the Rhode Island General Assembly providing that a suit pending for five years or more may be dismissed by the court in the exercise of its discretion upon motion, applies the policy of statutes of limitations to pending suits.[19]

The preceding discussion is not presented as a comprehensive analysis of statutes of limitations and their implications but is merely designed to indicate what the basic limitations periods under Rhode Island law are and what problems are presented in the application of statutes of limitations, especially to cases involving a physician.

REFERENCES

1 *34 Am. Jur.: "Limitation of Actions,"* §10

2 *Rhode Island General Laws of 1938,* C. 510 C. 477, §1

3 An exception is slander where statute runs from the date of the words spoken.

4 *34 Am. Jur.: "Limitation of Actions,"* §113
Byron v. Great American Indemnity Company: 54 R.I. 405, 173 Atl. 546 (1934)

5 *Walsh.* v. *Morgan:* 60 R. I. 349, 198 Atl. 555 (1938)
Kenyon v. *UER:* 51 R. I. 90, 151 Atl. 5 (1930)

6 *Rhode Island General Laws of 1938:* C. 510, §7
Reynolds v. *Hennessey:* 17 R. I. 169, 20 Atl. 307 (1890)

7 *Curtis* v. *Metcalf:* 259 Fed. 961 (D. R. I. 1919)

8 *Kenyon* v. *UER:* supra, Note 5

9 *Rhode Island General Laws of 1938:* C. 510, §5

10 *Cottrell* v. *Kenney:* 25 R. I. 99, 54 Atl. 1010 (1903).

11 *Rhode Island General Laws of 1938,* C. 510, §6: It should be noted that even if an incompetent has a guardian appointed for him, the statute does not run against him. See:
Bourne v. *Hall:* 10 R. I. 139 (1872)
Shambegian v. *United States:* 14 F. Supp. 93 (D. R. I. 1936)

12 *Rhode Island General Laws of 1938:* C. 510, §8

13 *Rhode Island General Laws of 1938:* C. 477, §1

14 *Tillinghast* v. *Reed:* 70 R. I. 259, 38 A2d 782 (1944)

15 *Griffin* v. *Woodhead:* 30 R. I. 204, 74 Atl. 417 (1909)

16 The classic malpractice case involving this question is that arising when a foreign object is left in a patient after surgery. Although the issue has not been decided in Rhode Island, it would seem that since the injury is sustained when the negligent act takes place that the statute would begin to run as of that time even though the existence of the object may not be discovered for years.

17 *Byron* v. *Great American Indemnity Company:* 54 R. I. 405, 173 Atl. 546 (1934)

18 *Rhode Island General Laws of 1938:* C. 510, §5

19 *Rhode Island Public Laws of 1957:* C. 3978

WOMAN'S AUXILIARY MEETING

Sheraton-Biltmore Hotel

***November* 13**

INGESTION OF MULTIPLE FOREIGN BODIES

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Introduction

THE INGESTION of multiple foreign bodies has been generally treated in the literature as a surgical curiosity. In recent years these cases have been approached more from a psychiatric viewpoint. Recently, we encountered such a problem which presented an interesting psychiatric background as to motivation for the ingestion of multiple foreign bodies.

Case Report

Case #4025. A fifty-five-year-old white married female was admitted to St. Joseph's Hospital on March 25, 1957 with a chief complaint of repeated episodes of crampy, abdominal pain which began about two weeks prior to admission. The attacks became progressively more severe and were accompanied by nausea and vomiting. The pain was intermittent and located chiefly in the left upper abdomen. She denied having any chills, fever, or melena. However, she had not had a bowel movement in three days.

Past history: appendectomy, twenty years ago. Cholecystectomy, seven years ago, and repair of a perineal laceration, nine months prior to admission.

Physical examination: the patient appeared much older than the stated age and was markedly agitated, but cooperative. The positive findings were limited to the abdominal and pelvic examinations which demonstrated a moderately distended abdomen with deep tenderness and rebound in the left upper quadrant, and a large mass filling the left vault could be palpated by vaginal examination.

Laboratory work on admission showed a white blood count of 14,000 with 85 neutrophiles, 13 lymphocytes, and 2 eosinophiles. The urinalysis was essentially negative, and the blood chemistry was also within normal limits.

A flat plate of the abdomen revealed multiple foreign bodies located in both the small and large bowel together with segmental distension of the jejunum (see Figure I).

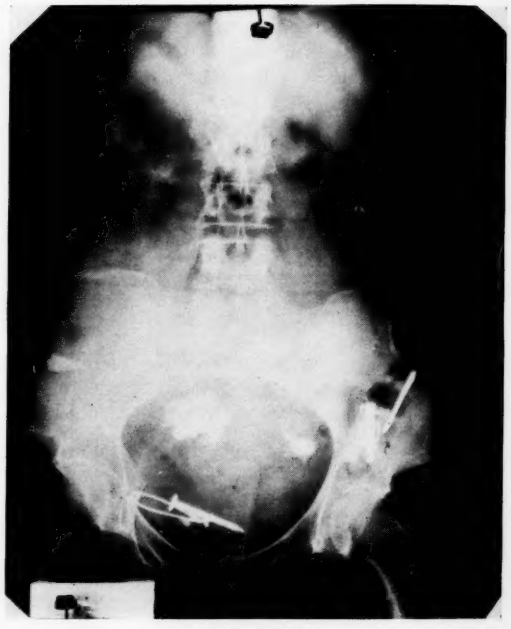

FIGURE I

A diagnosis of intestinal obstruction due to multiple foreign bodies was obvious and at laparotomy, a perforation of the ileum was found. It was effectively walled off by a redundant loop of sigmoid. Through this perforation, three broken razor blades and several pieces of glass were removed from the lumen of the ileum. The edges of the involved segment around the perforation were excised and the ileum closed transversely. The remaining foreign bodies were removed by multiple enterotomy and colotomy. A flat film taken upon completion of the procedure did not show any remaining foreign bodies.

Postoperatively, the patient was treated vigorously with intravenous antibiotics and gastrointestinal intubation. The Cantor tube was removed on the third day and the patient placed on oral feedings. On the fifth day a large piece of glass was removed manually from the rectum without difficulty. Recovery was uneventful.

Discussion

From the psychiatric point of view, the intriguing questions are, first, what kind of people do such

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FIGURE II

a bizarre thing as ingest foreign bodies, and second, why? After all, the placement of foreign bodies in the gastro-intestinal system is as nonsensical and incompatible, considering normal purpose and function, as one making an attempt to smell with his ears.

The patient was first seen in psychiatric consultation on March 26, 1957, following surgery. During the course of psychiatric study, a few interesting facts were revealed. The patient appeared much older than her stated age. Her forehead was deeply wrinkled, her facial expression was one of intense anxiety and apprehension. Her hair was completely white. She appeared generally undernourished. Throughout the course of psychiatric management, the patient felt continually embarrassed to discuss the ingestion of the foreign bodies, and although many efforts were made to ascertain her motivation as clearly as possible, she maintained only two attitudes. First, "I don't know why," and second, she expressed a generally nihilistic attitude. Hence, she stated, "I mumble, I talk to myself, I'm lonely, I keep saying s-o-b, s-o-b, I call that to him (her husband) because he don't give me no money, and that's what makes me nervous." Later, she added, "It comes unintentional. I get depressed when I'm alone. I'm afraid to be alone. He never talks to me." It is extremely significant that she could not stop saying, "s-o-b." The patient would frequently cry, especially when she recalled "what I did," meaning the ingestion of the foreign bodies. Still later, she stated, "I didn't care any more. I was so discouraged and so depressed. I was trying to make him (husband) change."

As we shall see, perhaps the most significant fact of all is that she admitted consciously that she was very angry "at him," and it is interesting that even as she was discussing this point during the interview situation, she suddenly mumbled the word "bitch," and obviously had badly impaired control over that urge. She admitted, too, that at the time of ingesting the foreign bodies she felt as if, "I didn't want to live any more." She described what appeared to be a "vision" of her dead mother calling her by name. She also spoke of hearing voices about "different things hollering."

The patient's past medical history is significant. When she was about twenty years old an appendectomy was performed; "years ago" (the patient could not remember exactly) an ovarian cyst was removed; twelve years ago she underwent surgery for hemorrhoids, fissure, and gall bladder disease; eleven years ago, according to the husband (the patient stated seven years ago), radium implantation of the cervix was performed; nine years ago the patient made a suicidal attempt by ingesting barbiturates, and was hospitalized for approximately two weeks at the Charles V. Chapin Hospital. The husband stated that just prior to this suicidal attempt, the patient would "take off for weeks at a time and would end up with her sisters" in a nearby state. She had been drinking excessively. In July of 1956, the patient was treated for what was described by herself and her husband as a "ruptured vaginal artery," but which, according to the physician, appeared to be more like a self-inflicted traumatic vaginal condition.

At the time of this writing, the patient is hospitalized (second time) and is currently receiving electric shock treatment. Diagnostically, there can be little doubt that the patient has suffered from a long-standing schizophrenic illness. The patient complained continually that her husband would not give her money. The husband's view was that for the first two years after they were married, he would give her his pay check, but he then became unemployed and the patient pressured him into getting work. This apparently frightened and angered him. And from then on, he refused to give the patient his pay check, although he claims he did give her money.

In an attempt to answer the questions indicated above, a thorough search of the literature was made, going back some forty-five years. It is interesting to note that in the early years there was very little psychiatric interest, and particularly from a motivational point of view, in the cases reported. By and large, cases were reported as interesting phenomena with particularly diagnostic surgical or radiologic aspects, etc.

Day[1] reports a case of a twenty-seven-year-old male with a manic depressive illness from whom 236 articles, weighing a total of one pound and nine ounces were removed surgically from the gastro-intestinal tract. The patient subsequently died. This was in 1914.

Balfour[2] in 1916 reports the case of a twenty-

nine-year-old female, "an insane woman," who underwent surgery for the removal of foreign bodies in the gastro-intestinal tract.

Eliason[3] in 1917 reported a case in which 452 foreign bodies, weighing a total of three pounds were removed surgically from the stomach of a patient.

Nix,[4] also in 1917, reported the case of a patient who had a bolus of 95 hairpins in the gastro-intestinal tract.

Hoisholt,[5] in 1918, referred to two mentally ill females who ingested foreign bodies by means of what he describes as "impulsive acts." He comments, "the impulsive acts in these cases appeared to have been carried out in states of befogged consciousness, or dream states, under the influence of understandings and desires with which the patients had been occupied during their more normal states, but which inclinations they, at such times, could overcome by rational reasoning." Here, we see an attempt to delve into the question of why human beings perform such strange acts. The author discusses a particular case of a twenty-two-year-old male schizophrenic who ingested foreign bodies, and then, in great detail, discusses four cases:

The first is that of a thirty-five-year-old female schizophrenic who ingested 1,149 foreign bodies, weighing one pound and two ounces, which were removed surgically. Four years later, 1,921 foreign objects were again removed surgically. This patient was questioned later and, among other things, she is quoted as saying, "I thought I would make myself physically ill, so that the nurse would feel sorry for me and give me more attention." Here, the author is suggesting attention-getting devices as a motivation.

Case two is that of a thirty-one-year-old female who attempted suicide by butting her head against a wall, also by strangulation. She would verbally threaten suicide by declaring, "The only way to end it all is to shoot myself." Later, this patient passed 23 pieces of broken glass, but, incidentally, had not suffered from any abdominal pain. From this case I think we can begin to see a connection between depression, suicidal intentions, and the ingestion of foreign bodies. No particular psychiatric comments are made on the remaining two cases.

Brand[6] in 1923 reports the case of a twenty-seven-year-old female who underwent surgery for the removal of foreign bodies. The only psychiatric reference made is that she was "neurotic."

Thoreck[7] in 1924 reported, in considerable detail, the case of a "professional swallower" who swallowed 275 articles which were removed surgically. This particular case is noteworthy only in that professional swallowing is, as we shall see later, one of the motivations for the ingesting of foreign bodies.

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Walker[8] in 1925 presents the case of a female with dementia praecox who swallowed a fork, spoon, can opener, and crochet needle. Also, a second case, is that of a manic depressive psychotic who swallowed razor blades. No motivational aspects are indicated.

Yankauer[9] in 1926 records the case of a woman suffering from melancholia who swallowed 13 foreign bodies with the intention of committing suicide. No further psychiatric aspects are indicated.

Blackburn[10] in 1927 reported the case of a thirty-five-year-old woman who stated that she had swallowed a large number of safety pins, thirteen years previously, because "she was hungry." This patient is said to have experienced no subjective symptoms in all those years. The author states that "no psychotic symptoms were evident." However she was classified as a "senile dwarf."

Chalk and Foucar[11] in 1928 report an unusual case of a forty-two-year-old woman who had been hospitalized for one and one-half years because of a manic depressive illness. At the time of surgery, a total of 2,533 pieces of foreign bodies were found in her stomach. The total weight was 410 grams. The foreign bodies included screws, nails, pins, beads, coins, glass, etc.

In 1931, Rivers and Davison[12] reported on 14 cases of foreign bodies in the stomach. Nothing of psychiatric interest is indicated other than that some of the fourteen patients were psychotic.

Again in 1931, Kellum[13] reported the case of a white male with a diagnosis of dementia praecox, catatonic type, who used alcohol to excess, and attempted suicide by slashing his throat with a razor, and who finally came to surgery after having ingested banana peels, egg shells, Christmas decorations, sticks, leaves, paper, etc. He subsequently died, following surgery.

The author distinguishes two groups from the point of view of motivation. The first he calls "intentional" group as opposed to "accidental" group. In connection with the intentional group, suicide would seem to be the motivation. Further, oral eroticism is given as a possible motive. That is to say in simpler terms, the ingested foreign bodies possess symbolic representation, or meaning.

Again, in 1931, Cannady,[14] in discussing foreign bodies in the stomach and intestines, mentions hairballs, weighing from two and one-half to three pounds, found in the gastro-intestinal tract, and he cites Swain, who in 1895 reported that one hairball weighed five pounds and three ounces. He mentions different types of foreign bodies which include tobacco, grass, shellac stones, pumpkin residue, watermelon seeds, rags, and twine. He suggests that foreign bodies are swallowed either by accident, design, or with suicidal intent, and that "an irresistible impulse" may be responsible for the ingestion of a foreign body. He quotes a previously reported case of an insane patient in whom, at autopsy, four pounds of metal articles were found on each occasion.

In 1931 Stuart[15] described a method to promote passage of foreign bodies swallowed in attempted suicide. The method was successfully used in a male schizophrenic who had ingested a buckle, an open safety pin, a half-dollar, and possibly a watch crystal. The method consisted in the patient's swallowing a number of cotton balls, about the size of golf balls, after they had been dipped in melted butter. The next day the patient passed a silver dollar and the safety pin, both being completely surrounded by, and entangled in, the cotton.

In 1936, Eliason and Wright[16] raised the question whether a patient with a mental disease could have associated nerve cell lesions which resulted in fallacious, or at least misleading, visceral symptomatic phenomena, causing erroneous diagnoses. Fifteen cases were presented, ten of which consisted of mentally ill patients who swallowed foreign bodies, and as to the reason, the authors inquired whether it was because of abnormal hunger or some peculiar and strange desire. In an attempt to answer these questions they suggested, as reasons for swallowing foreign bodies: 1. no known reason; 2. suicidal intent; 3. spite. Psychiatric diagnoses in this series included psychoneurosis, puerperal psychosis, dementia praecox, mental deficiency, and manic-depression.

In an article titled *Foreign Bodies in Psychotics,* by Pollack,[17] in 1938, the author sees this as an expression of perverted sexuality. The author lists thirteen sexual perversions and then includes, apparently a fourteenth, which is the use of foreign bodies to obtain sexual gratification. Among the sexual perversions he lists masturbation, exhibitionism, fellatio, cunnilingus, transvestitism, homosexuality, and others. He describes the case of a twenty-seven-year-old female, dementia praecox, paranoid type, who swallowed a tatting shuttle because "she enjoyed the sensation of swallowing foreign objects"—a vicarious type of sexual sensation. This patient had been promiscuous and alcoholic, prior to hospitalization, and she openly solicited coitus while in the hospital. The author describes several other cases in an attempt to demonstrate his theory.

Power[18] in 1939 suggested five reasons why people swallow foreign bodies: 1. entertainment; 2. accident; 3. ignorance; 4. mischief; 5. suicide. The foreign bodies swallowed by accident probably form the bulk of the cases in surgical practice. Under the heading of ignorance may be placed, apparently, some insane, and demented people. He suggests that, among the insane, mischief is by far

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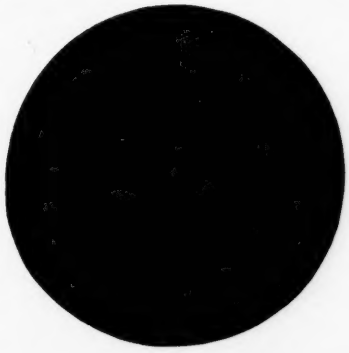

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the most frequent motive for swallowing foreign bodies. He speaks of such people as possessing no powers of self-control, as being "vindictive to a degree," and he adds that "they swallow foreign bodies with the object of giving as much trouble as possible to those who look after them and whom they are well aware are responsible for their welfare."

In 1941 DeBernardi,[19] of Trieste, Italy, presented three cases from the point of view of X-ray iconography. For our purpose the interesting psychiatric aspect consists only of the fact that the first case was that of a twenty-four-year-old farmer who swallowed a large number of nails for the purpose of suicide. The second case is that of a twenty-one-year-old prisoner who was motivated by a desire to be admitted to the hospital, and who repeated the performance of ingesting foreign bodies on three occasions, in each instance passing the foreign bodies naturally. The third patient was motivated by a desire for exhibitionism.

In an article by Arieti,[20] in 1944, some interesting material is presented. The author first discusses the case of a thirty-two-year-old male who was admitted to the Pilgrim State Hospital in 1933, where a diagnosis of dementia praecox, paranoid type, was made. The patient subsequently deteriorated severely. In 1939, he died of acute intestinal obstruction, and the autopsy revealed a total of 16 spoon handles, and a piece of shirt collar in the terminal ileum, which caused the obstruction.

The author points out that it is not rare to see schizophrenics grasp their own feces, chew them, and eat them, often with great satisfaction (coprophagia). The author believes that this is not "silly, purposeless behavior," but rather behavior which is a manifestation of mechanisms belonging to lower levels of integration. He offers observations from the fields of comparative psychology, child psychology, psychiatry, experimental neurology, anthropology, and psychoanalysis, as corroborating such a belief. Hence, it is obvious to anyone who has observed children, one to two years of age, that they grasp indiscriminately, edible and non-edible objects and attempt to put them into their mouths, licking, sucking, or eating them. This habit, or "oral tendency" may persist pathologically up to the third or even fourth year, and, according to the author, is erroneously called perverted appetite, or pica! But this habit is also a habit of regressed psychotics. When both temporal lobes of trained monkeys were extirpated, such monkeys showed an irresistible tendency to grasp anything within reach and placing the grasped object in their mouths, biting it, touching it to their lips, and finally eating it, if edible. In another field of investigation, members of savage tribes are in the habit of eating some inedible substances (geophagy). These examples, taken from different fields of investigation, have some features in common, namely, the picking up of objects from the immediate environment and placing them into the oral cavity, no discrimination being made concerning their nature, or no consideration being paid to the fact that they are not edible. Further, the bitemporal monkeys, and, in a certain sense, even the child of one or two years of age, may be considered "psychically blind." That is to say, they show no discrimination, no preference for food, nor for learned reactions, and no ability to concentrate on particular objects. In a certain way the demented schizophrenic, in advanced stages of regression, may be considered as partially psychically blind. The author advances the hypothesis that this kind of behavior in children, bitemporal monkeys, and regressed schizophrenics, is a primitive way of reacting, is characteristic of a certain level of development, and is "inhibited or transformed by higher centers." The author points out that psychoanalysis describes an oral stage of development, a stage at which mental patients may be fixed, or to which they may regress.

Neustatter,[21] in 1947, divides a group of eleven "swallowers" into two sub-groups: the first subgroup amounting to attention-getting attempts, and the second sub-group consisting of patients in "a highly emotional state, with a considerable degree of depression." Utilizing two control groups, a significant difference was found in the "swallower" group as compared to the two control groups, in that, early home conditions in childhood in the "swallower" group was poor. Such early home conditions included father violence, father alcoholic, father brutality, parental disharmony, parental separation. The "swallowers" showed a greater incidence of early truancy from school, adolescent delinquency, violent temper and nervousness. The conclusion reached by the author is that the swallowing of foreign bodies appears to be due either to very mundane causes, or to be caused by severe depression in unstable individuals.

A very pertinent discussion dealing with the psychiatric aspects, and particularly with *motivation* in the ingestion of foreign bodies is that of Carp[22] in 1950. The author points out that "an attempt to ascertain what prompted patients to swallow foreign bodies failed in most instances to elicit informative responses." Also, in the second decade of life, the motive was a desire for mischief, or exhibitionism. In other decades (of life) four patients had suicidal intents. In three instances swallowing was accidental. Hence, there may be regression to a level of "non-development," the infantile, or animalism. Oral exploration, as in animals, may produce pleasure in mentally dete-

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riorated human beings. In depressed patients suicide may be the motive. The largest group of offenders is that of dementia praecox. Here, self-mutilation may be the motive. There is also the masochistic group whose self-infliction of punishment may occur as a reversal of a feeling of guilt or hostility to the environment. This particular observation of the author is extremely pertinent, in my opinion, to our own case. There can be no doubt that our patient harbored intense hostility, as expressed with such words as, "bitch, s-o-b." Moreover, she repeatedly and bitterly complained that her husband was inconsiderate of her, particularly, in refusing to give her money. Hence, she reverses hostility to herself — by self-infliction of pain and punishment — from the environment (husband).

Carp indicates another group with dementia praecox labeled "introjective swallowers" who imagine foreign bodies to be loved objects such as breasts or penises. Sometimes there is a mental association between such things as a safety pin with the symbolic mother of the patient when the patient was a child. Some patients have pregnancy phantasies. A male schizophrenic may feel like a woman and have a desire for impregnation. His warped mind imagines that a swallowed foreign body will produce oral impregnation. Reverting to the infantile, with its uncontrolled drive for playfulness, exhibitionism, escape from fear, or a desire to arouse sympathy may also produce abnormal deglutition. Jail inmates who may wish to evade routine punishment by transfers to the infirmary may resort to this practice. Occasionally, men use this device in an attempt to avoid induction into the military service.

Gants,[23] in 1955, stated that accidental swallowing of a foreign body is by far the most common, and occurs predominantly in infants and children, but also in adults.

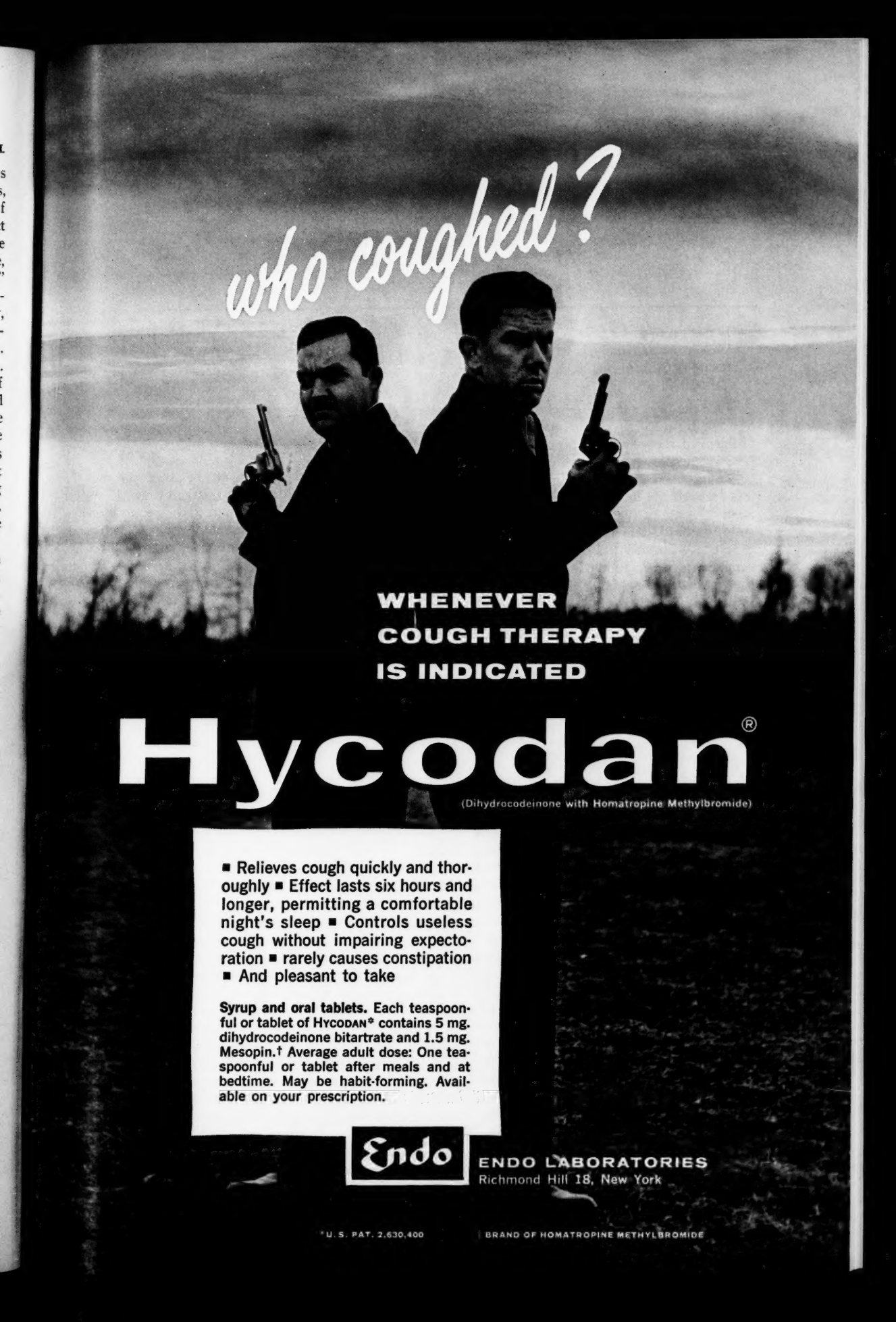
In summary, we may venture to answer the questions, what kind of people ingest foreign bodies and why. *Accidental* swallowing of foreign bodies, said to be the most common kind, obviously is of no particular interest here. All people are subject to accidents. Apart from this, it is certainly safe to say that people who ingest foreign bodies are, broadly speaking, *mentally ill.* "Professional" swallowing and swallowing for entertainment impresses this writer as belonging to such a category, even though one might be inclined to use such descriptive terms as "crackpots," "eccentrics," etc. Exhibitionists are considered mentally ill people. Further, something is wrong with the "mind" of those people who seek to gain attention or to avoid duty by this strange means. Something is likewise wrong with the "mind" of a *malingerer.* More strictly, *psychotics* most often ingest foreign bodies and most frequently they are *schizophrenics.* Next in order would seem to be *depressions,* including such diagnoses as *manic depression, melancholia,* etc. *Mental deficiency* and *psychoneurosis* are other diagnoses given in the literature.

Suicide would appear to be the most common motive. *Spite, vindictiveness, attention-getting, exhibitionism, impulsive behavior, irresistible impulses* have all been suggested. Symbolism in the form of perverted sexuality and *oral eroticism* may motivate some people to ingest foreign bodies. *Animalism* and *infantilism*—as regressive phenomena—may cause human beings to swallow objects foreign to the gastro-intestinal tract. Lastly, and perhaps most pertinent, *self-mutilation* and self-infliction of punishment occurring as a reversal of a feeling of guilt or hostility to the environment is a motive, mostly unconscious. In its simplest and crudest form this motivation would seem applicable to our case.

BIBLIOGRAPHY

[1]Foreign Bodies in Stomach; Report of an Unusual Case, (J. L. Day), J.A.M.A. 63:1026, September 19, '14
[2]Foreign Bodies in the Stomach of Insane Woman (Balfour), J.A.M.A. 66:421, February 5, '16
[3]Case Illustrating Foreign Bodies in the Stomach, (E. L. Eliason) J.A.M.A. 69:2106, December 22, '17
[4]Bolus of 95 Hairpins Removed from Stomach, (J. T. Nix) J.A.M.A. 68:840, March 17, '17
[5]Impulsive Acts in Particular Form of Swallowing Foreign Objects Among Insane, (A. W. Hoisholt) Am. J. Insan. 74:569, April '18
[6]Foreign Bodies in the Stomach Removed by Operation, (A. G. Brand), Brit. M. J. 1:1018, June 16, '23
[7]Large Collection of Foreign Bodies in Stomach, Report of Case with Review of the Literature, (M. Thorek) Internat. Clinic 3:282-90, September '24
[8]Fork, Spoon, Can Opener, and Crochet Needle in Abdomen: Safety Razor Blade in Abdomen. (I. J. Walker) Boston M. & S. J. 192:962-3, May 14, '25
[9]Thirteen Foreign Bodies Removed from Esophagus at One Sitting, (S. Yankauer) Arch. Surg. 12:447-8 (pt. 2), January '26
[10]Mass of Safety Pins in the Stomach, (G. Blackburne) J.A.M.A. 89:1059:60, September 24, '27

concluded on page 538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BOOK REVIEWS

THE PATIENT SPEAKS: Mother Story Verbatim in Psychoanalysis of Allergic Illness, by Harold A. Abramson, M.D. Vantage Press, Inc., N.Y., 1957. $3.50

Since the beginning of psychoanalysis and later of other forms of psychotherapeutic treatment, the problem of recording and presenting to others the personal experience of the patient-doctor interaction has been an outstanding one. Freud himself left an accurate description of the analytic treatment of some of his patients, so vividly and carefully presented that it became part of the classics of the psychoanalytic literature. It is enough to think of the description of the Schreiber case or of the analysis of a phobia in a five-year-old boy. Other authors have followed Freud in the description of their methodic work with the patient who is followed through the stages of the therapeutic process. This system of recording is now only seldom applied, due to the pressures of modern life. This results in an impoverishment of teaching methods and research in psychiatry. To overcome this state of things, recently new methods of communication have been introduced in psychiatry, especially the use of tape-recording machines and of the one-way mirror (through which observers can follow the treatment of a patient by his doctor without being seen). Both, however, present some disadvantages; essentially that they can be directed only to a limited audience. Hence, the advantage of a detailed account of a patient's verbal and general behavior, which also gives the possibility of following his interaction with the therapist.

The author of this book, Doctor Harold A. Abramson, an allergist and a psychoanalyst practicing in New York, has taken full advantage of the implications of the verbatim record of his patient's analysis. As obviously all the verbal material offered by the patient could not be reported, a selection had to be made. Doctor Abramson has succeeded remarkably well in his difficult job of making a choice of the most important material, still maintaining the chronological order. What is more important, he has maintained and stressed all through the book the basic course of the treatment, focusing on the crucial aspects of it. Thus the reader is gently guided by the author through the different stages of the treatment from its beginning until its conclusion.

The patient under treatment is a thirty-two-year-old woman who has suffered from a persistent eczema since the early months of her life. This woman, who is married and has a little daughter, has experienced since childhood a very ambivalent relationship toward her own mother, a rigid, domineering and prejudiced person. Little by little, in the course of the treatment, the author arouses the tremendous hostility of the patient toward her own mother and leads the patient to the recognition and expression of her own inner feelings. The patient comes to understand that unconsciously she always associated her skin condition with feelings of dirt, thus devaluating herself. Furthermore, she comes to realize that she always scratches when frustrated, especially by her own mother, and that separation from her mother raises intense guilt. Later on she understands that switching her hostility toward her husband and then toward the therapist constitutes the beginning of the solution of her conflicts.

The few questions introduced by the therapist, and the comments added here and there, help in stressing the basic dynamics of the patient and the main course of the treatment. The dynamics of this patient is centered around the relationship with her mother. It is, indeed, a very good example of the complex interaction between patient and mother and of the possible influence of this interaction on the patient's little daughter; a topic which is considered of basic importance in the study of the pathogenesis of many psychopathological conditions, even in regard to child psychiatry.

As one reads the book, however, one cannot help but receive the impression of a certain degree of artificality in such a detailed description of the patient-mother interaction. Namely, of all the possible areas of the reality of the patient's life, the author has isolated and described only one, disregarding the others. This results in a general feeling of isolation from the total social and cultural background in which the patient operates. While this impoverishes the book, it offers at least the advantage of a thorough comprehension of one—doubtless the most important—area of the patient's behavior.

Viewed from this perspective—which is the one

that the author has constantly in mind—this book is very educational for psychiatrists and allergists, as well as for many others. The fact that the material presented by the patient is referred in first person makes the reading even more refreshing and lively. It is unfortunate that the last chapter on the evaluation of the mother role and of the Chronus complex in allergy is too full of theoretical implications which to this reviewer, are far from being validated by clinical experience and, in particular, by the material presented in the book. Even with this criticism, this book remains a valuable example of an approach between the experimental and the clinical, of which there is a tremendous need in psychiatry. I am sure that many other psychiatrists will agree with me in the hope that Doctor Abramson's example will be followed soon by others.

GEORGE MORA, M.D.

CLINICAL PROCTOLOGY by J. Peerman Nesselrod, B.S., M.S., M.Sc. (Med.), M.D., F.A.C.S., F.A.P.S., Assistant Professor of Surgery, Northwestern University Medical School. W. B. Saunders Co. Phil., 1957. $7.00

This volume is an extension of the first edition and is an excellent presentation of the fundamentals of proctology. There is much new material which makes it an excellent beginner's volume, not only for the general practitioner, but also for the internist who may wish to become proficient in proctoscopy. The surgical techniques and management which the author describes will enable the general surgeon to elevate his work in anorectal surgery to the same creditable plane achieved in other fields of surgery. The proctologist should include this text in his library.

The book is well written and the illustrations are excellent. It is recommended, unreservedly, to the student, the general practitioner, and the proctologist.

THADDEUS A. KROLICKI, M.D.

SCIENCE LOOKS AT SMOKING by Eric Northrup. Coward-McCann, Inc., New York, 1957. $3.00

This little volume of 190 pages appears to be an attempt to persuade the public that the evidence which points to cigarette smoking as an important factor in the production of bronchogenic carcinoma is so inconclusive that it may well be disregarded. The use of the word "science" in the title is perhaps calculated to influence the reader to conclude that here we have a calm, unbiased opinion on a subject that heretofore has been clouded by emotion related to the personal habits and desires of those who dis-

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cuss the matter. A possible relation to the financial interests of the powerful tobacco industry is not mentioned although the results of some of the studies sponsored by that industry are quoted. However, the discussion seems in fact to be far from unbiased and the arguments employed by the author as well as those used in the introduction which is written by Doctor H. S. N. Greene of New Haven, a pathologist and an inveterate smoker by his own admission, are, in the opinion of this reviewer, specious in the extreme.

The effort is almost entirely directed toward discounting the mass of evidence which points to cigarette smoking as having a definite relation to the occurrence of carcinoma of the lung. There is also a little space devoted to the question of the effect of smoking on coronary heart disease. In the discussion of this subject various other factors which are generally accepted as of more importance in causing coronary disease than is tobacco are stressed. It is to be noted, however, that no definite consideration of the universally recognized relationship between tobacco and occlusive disease of the peripheral arteries is anywhere taken up. Furthermore, no mention at all is made of what is probably the most lethal effect of excessive and long continued smoking, namely, the development of chronic bronchitis and obstructive emphysema.

Possible factors, other than smoking, that may be active in the etiology of bronchogenic carcinoma, such as air pollution, receive a good deal of attention with the obvious purpose of decreasing the emphasis on tobacco smoke. The recent rise in the sale of cigarettes, after the decrease which occurred following the publication of the earlier reports on smoking and lung cancer, is cited, though one is at a loss to see any value of this fact in upholding the main argument of the author. The potent action of tobacco as a "tranquilizer" is brought out and the pleasures of smoking emphasized by a series of quotations from eminent smokers which, in a mild way, resemble what one might suppose would be written by a similar group who were opium addicts.

An attempt to discount the value of the work of Auerbach and his group who found numerous carcinomata in situ in the lungs of heavy smokers is certainly unsuccessful. The same may be said of the comments on the statistical studies of Wynder and Graham, Hammond and Horn and others. The publication of this book apparently antedated and therefore could not discuss the recent statement of the U. S. Public Health Service—"there is an increasing and consistent body of evidence that excessive cigarette smoking is one of the causative factors of lung cancer."

In the opinion of this reviewer, a book which presents a clear-cut and unbiased interpretation of present-day information on the effects of tobacco smoking would be of real value. This is not such a book. On the contrary, here we are dealing with such an obvious attempt to discredit well-documented evidence by the use of arguments that are quite unconvincing and are repeated again and again, that one is reminded of the Queen's remark to Hamlet "The lady doth protest too much, methinks."

ALEX M. BURGESS, M.D.

EPILEPSY: GRAND MAL, PETIT MAL, CONVULSIONS, by Letitia Fairfield, C.B.E., M.D., D.P.H. Philosophical Library, Inc., N.Y., 1957. $4.75

This short, but interesting book, has some clearly defined objectives. They are: 1. To summarize for the public exactly what is known about the various forms of the disease and the treatments presently available. 2. To review the special problems presented by epileptic children. 3. What employment the epileptic can expect to find in the workaday world and 4. To help epileptics get their troubles into a proper perspective.

After reading this book the reviewer feels that all of the author's objectives have been accomplished in a clear and concise fashion. The confusion associated with multisyllabled medical and neurological terminology has been reduced to the irreducable minimum making the book excellent reading for non-professional individuals connected with the epileptic patient, the disease itself and all its sociological implications.

To the physician trained in the treatment of neurological illness nothing new of scientific interest has been brought forward by this publication.

THOMAS LOFTUS GREASON, M.D.

DISTRICT MEDICAL SOCIETY MEETINGS

BRISTOL COUNTY MEDICAL ASSOCIATION

At the annual meeting of the Bristol County Medical Association, held in July, the following officers were elected to serve for the ensuing twelve-month period:

Arcadie Giura, M.D., of Warren ..... *President*
Bruce W. Smith, M.D., of Barrington, *Vice-President*
Paul A. Botelho, M.D., of Bristol ..... *Treasurer*
Ulysse Forget, M.D., of Warren ..... *Secretary*

WOONSOCKET DISTRICT MEDICAL SOCIETY

A meeting of the Woonsocket District Medical Society was held on August 12, 1957, at 11:00 A.M. at the Woonsocket Hospital board room. Doctor Richard H. Dowling, president, conducted the meeting.

A request from the Woonsocket School Committee was received that the Medical Society submit to them a list of physicians who would be interested in the position of school physician. They also requested suggestions for improvement of care to children under this program. Doctors Harry Levine, Roger Fontaine and Arno Kiiss volunteered and their names will be forwarded to the School Committee without delay. A committee was appointed to draw up a better program for medical care to school children in Woonsocket. The committee consists of Doctor Oscar Daschef, Chairman, George Crepeau, and Joseph Bliss. It will report its recommendations at the next regular meeting.

The application for membership of Doctor Roger J. Fontaine was read. The Society's censors reported that he was qualified to be a member of this Society. He was voted into membership unanimously.

A request was read from Doctor J. Gerald Lamoureux to suspend his District Society dues while he was out of the active practice of medicine. The Society so voted.

Meeting adjourned at 11:30 A.M.

ALTON P. THOMAS, *Secretary*

INGESTION OF MULTIPLE FOREIGN BODIES

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[11]Case in Which More Than 2,500 Foreign Bodies were Found, (S. G. Chalk & H. O. Foucar) Arch. Surg. 16:494-500, February '28

[12]Foreign Bodies in the Stomach, (A. B. Rivers & H. L. Davison) Ann. Int. Med. 4:742-51, January '31

[13]Foreign Bodies in the Gastro-intestinal Tract in Psychotic Patients, (H. J. Kellum) U. S. Vet. Bur. M. Bull. 7:50-2 January, '31

[14]Foreign Bodies of the Gastro-intestinal Tract, (J. E. Cannaday) Ann. Surg. 94:218-32, August '31

[15]Method to Promote Passage of Foreign Bodies Swallowed in Attempted Suicide (case), (N. E. Stewart) M. Bull. Bet. Admin. 7:1082, Nov. '31

[16]Digestive Phenomena in the Psychopathic Patient, (E. L. Eliason & V. Wm. Wright) Ann. Surg. 103-572-9, April, '36

[17]Foreign Bodies in Psychotics as an Expression of Perverted Sexuality, (B. Pollack) M. Times, N. Y., 66:171, April '38

[18]Swallowed Foreign Bodies in Relation to Mental Hospital Practice, (T. D. Power) Proc. Roy. Soc. Med. 32:891-2, June '39

[19]Some cases of Swallowing of Miscellaneous Objects, (deBernardi) Am. Roentgenol. 46:75-9, July '41

[20]The "Placing-into-Mouth" and Coprophagic Habits Studied from a Point of View of Comparative Development Psychology, (S. Arieti) J. Nerv. & Ment. Dis. 99:959-64, June '44

[21]The Swallowing of Foreign Bodies, (W. L. Neustatter) Brit. M. J. 1:332-4, March 15, '47

[22]Foreign Bodies in the Gastro-intestinal Tracts of Psychotic Patients, (L. Carp) Arch. Surg. 60:1055-75 June '50

[23]Foreign Bodies in the Gastro-Intestinal Tract, (R. T. Gants & J. B. Jay) U. S. Armed Forces M. J. 6:987-91, July '55

Monday, October 7, at 8:30 P.M.

Regular Meeting

of the

Providence Medical Association

At the Medical Library

CLINICAL OBSERVATIONS WITH PHENAGLYCODOL IN HYPERTENSION WITH ANXIETY STATES

concluded from page 515

H.M. — Sixty-eight-year-old retired school teacher, a remarried widow whose second marriage was unfortunate. She was seen after her return from a Reno divorce. Eating poorly, with frequent spells of nausea and vomiting, B.P. 196/100, severe insomnia, neurodermatitis of both hands. Response to Phenaglycodol was rather dramatic. In four days she was sleeping better and in two weeks the G.I. symptoms were gone. The rash improved rapidly and disappeared in three weeks. Her B.P. came down to 184/100.

F.P. — Fifty-two-year-old sales representative and trouble shooter for a large manufacturing firm. He was mildly hypertensive and had frequent anginal pains brought on by business tension. On two-week check-up he was normotensive, the angina was infrequent, and he was sleeping normally.

Discussion

One always hesitates to present a paper without an impressive list of extensive laboratory studies. However, it was felt that observations on average patients' response, in an average community, would be of value, as differentiated from studies on institutionalized patients, since the practice of medicine in the United States is still, for the most part, concerned with private patients in office practice.

Phenaglycodol is a safe and effective relaxing agent for mild anxiety states. Its hypotensive effect is due entirely to its sedative action. There was no mental clouding or slowing of reflexes, as seen with members of the barbiturate family. No contraindications because of toxic side-effects were noted. Side reactions were due to individual susceptibility and disappeared on discontinuance of the drug. Arteriosclerotic patients responded very poorly. Phenaglycodol is ideal in the 35 to 60 age group who show mild to severe anxiety from the stress of modern life. Patients on this medication should be checked frequently for toxicity and evidence of habit formation, as found by Lemere in Meprobomate.[5]

SUMMARY

A total of 111 cases of anxiety with hypertension were treated with Phenaglycodol. A favorable response was noted in 92. No toxic effects were noted. The new drug was found to be a safe and effective agent. However, further studies are needed with observations on habit formation and toxicity, after very prolonged use.

REFERENCES

[1]Slater, I. H.; Jones, G. T.; and Young, W. K.: Mode of Action of Phenaglycodol, a New Neurosedative Agent, Proc. Soc. Exper. Biol. & Med., in Press

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[2]Reitan, Ralph M.: Investigation of the Validity of Halstead's Measures of Biological Intelligence, A.M.A. Arch. Neurol. & Psychiat., 73:28, 1955
[3]Information for Clinical Investigators — Lilly Labs. for Clinical Research
[4]Reitan, Ralph M.: data to be published
[5]Lemere, F.: Habit-forming Properties of Meprobomate, A.M.A. Arch. Neurol. & Psychiat., 76:205, 1956

OUR ADVERTISERS

INTERIM MEETING PROGRAM

of the

RHODE ISLAND MEDICAL SOCIETY

WEDNESDAY, NOVEMBER 13, 1957

At the Rhode Island Medical Society Library

3:00 P.M. ***Conference on Cancer***

Moderator

ARTHUR PURDY STOUT, M.D., *of New York, N. Y.*

Professor of Surgery, Emeritus, and Professor of Pathology (retired), Columbia University College of Physicians and Surgeons

"EARLY DIAGNOSIS AND MANAGEMENT OF UTERINE CANCER"

EQUINN W. MUNNELL, M.D., *of New York, N. Y.*

Assistant Clinical Professor of Obstetrics and Gynecology, Columbia University College of Physicians and Surgeons; Assistant Attending Obstetrician and Gynecologist, Presbyterian Hospital; Assistant Visiting Gynecologist, Delafield Hospital

"CHOICE OF TREATMENT IN CANCER OF THE BREAST"

CUSHMAN D. HAAGENSEN, M.D., *of New York, N. Y.*

Clinical Professor of Surgery, Columbia University College of Physicians and Surgeons; Director of Surgery, Delafield Hospital; Attending Surgeon, Presbyterian Hospital

"INDICATIONS FOR PROPHYLACTIC RADICAL NECK DISSECTIONS IN HEAD AND NECK CANCER"

CARL R. FEIND, M.D., *of New York, N. Y.*

Instructor in Surgery, Columbia University College of Physicians and Surgeons; Assistant Visiting Surgeon, Delafield Hospital

5:00 P.M. ***Discussion Period***

6:00-7:00 P.M. RECEPTION and Social Hour for Members and Guests in foyer, Sheraton-Biltmore Hotel

7:00 P.M. DINNER. Members, Guests, and Members of the Woman's Auxiliary
Sheraton-Biltmore Hotel Ballroom

Speaker: WILLIAM J. STEWART, former Dean of National League Baseball Umpires